BIBLIOGRAPHY

Abbott, Earl W. *See* Theodore, Ted G., 287-316

Abrams, Michael J. *See* Rowan, Lawrence, 1019-1027

Aguirre, Ramón *See* Henríquez, Fernando, 1497-1500

Alderton, D. H. M. *See* Blundell, D. J., 1487-1495

Allen, Cameron R. *See* Hitzman, Murray W., 685-714

Alm, Elisabet; Broman, Curt; Billstrom, Kjell; Sundblad, Krister; and Torsander, Peter. Fluid Characteristics and Genesis of Early Neoproterozoic Orogenic Gold-Quartz Veins in the Harnas Area, Southwestern Sweden: 1311-1328

Alonso, José Antonio *See* Velasco, Francisco, 1371-1396

Alt, Jeffrey C. *See* Kesler, Stephen E., 1137-1157

Arcuri, Terry; and Brimhall, George. The Chloride Source for Atacamite Mineralization at the Radomiro Tomic Porphyry Copper Deposit, Northern Chile: 1667-1681

Arehart, G. B.; McInnes, B. A.; and Donelick, R. A. Evaluation of Radioisotope Dating of Carlin-Type Deposits in the Great Basin, Western North America, and Implications for Deposit Genesis: 235-248

Arehart, G. B. *See also* Chakurian, A. M., 1159-1171

Armstrong, Augustus K. *See* Peters, Stephen G., 317-337

Armstrong, Richard *See* Borg, Gregor, 749-771

Armstrong, Richard *See* Steven, Nick, 893-909

Arndt, N. T.; Czamanske, G. K.; Walker, R. J.; Chauvel, C.; and Fedorenko, V. A. Geochemistry and Origin of the Intrusive Hosts of the Noril'sk-Talnakh Cu-Ni-PGE Sulfide Deposits: 495-515

Arribas, A. *See* Palero, F. J., 577-605

Aversa, Gaspare *See* Boni, Maria, 731-748

Bailly, Laurent *See* Bellot, Jean-Philippe, 1427-1447

Balassone, Giuseppina *See* Boni, Maria, 731-748

Banks, David A. *See* Grandia, Fidel, 1397-1411

Banks, David A. *See* Grandia, Fidel, 933-954

Banks, David A. *See* Heijlen, Wouter, 911-932

Bellot, Jean-Philippe; Lerouge, Catherine; Bailly, Laurent; and Bouchot, Vincent. The Biards Sb-Au-Bearing Shear Zone (Massif Central, France): An Indicator of Crustal-Scale Transcurrent Tectonics Guiding Late Variscan Collapse: 1427-1447

Berger, Byron R.; Tingley, Joseph V.; and Drew, Lawrence J. Structural Localization and Origin of Compartmentalized Fluid Flow, Comstock Lode, Virginia City, Nevada: 387-408

Berger, Byron R.; King, Trude V. V.; Morath, Laurie C.; and Phillips, Jeffrey D. Utility of High-Altitude Infrared Spectral Data in Mineral Exploration: Application to Northern Patagonia Mountains, Arizona: 1003-1018

Berger, Vladimir I. *See* Theodore, Ted G., 287-316

Betts, Peter G.; Giles, David; and Lister, Gordon S. Tectonic Environment of Shale-Hosted Massive Sulfide Pb-Zn-Ag Deposits of Proterozoic Northeastern Australia: 557-576

Beukes, Nicolas J. *See* Tsikos, Harilaos, 1449-1462

Billstrom, Kjell *See* Alm, Elisabet, 1311-1328

Blundell, D. J.; Karnkowski, P. H.; Alderton, D. H. M.; Oszczepalski, S.; and Kucha, H. Copper Mineralization of the Polish Kupferschiefer: A Proposed Basement Fault-Fracture System of Fluid Flow: 1487-1495

Boden, David R. *See* Castor, Stephen B., 339-366

Boland, M. B.; Kelly, J. G.; and Schaffalitzky, C. The Shaimerden Supergene Zinc Deposit, Kazakhstan: A Preliminary Examination: 787-795

Boni, Maria; and Large, Duncan. Nonsulfide Zinc Mineralization in Europe: An Overview: 715-729

Boni, Maria; Gilg, H. Albert; Aversa, Gaspare; and Balassone, Giuseppina. The "Calamine" of Southwest Sardinia: Geology, Mineralogy, and Stable Isotope Geochemistry of Supergene Zn Mineralization: 731-748

Borg, Gregor; Kärner, Katrin; Buxton, Mike; Armstrong, Richard; and van der Merwe, Schalk W. Geology of the Skorpion Supergene Zinc Deposit, Southern Namibia: 749-771

Borhauer, Jeff *See* Kesler, Stephen E., 1137-1157

Both, R. A. *See* Palero, F. J., 577-605

Bouchot, Vincent *See* Bellot, Jean-Philippe, 1427-1447

Boyce, Adrian J.; Little, Crispin T. S.; and Russell, Michael J. A New Fossil Vent Biota in the Ballynoe Barite Deposit, Silvermines, Ireland: Evidence for Intracratonic Sea-Floor Hydrothermal Activity About 352 Ma: 649-656

Boyce, Adrian J. *See also* Palero, F. J., 577-605

Brimhall, George *See* Arcuri, Terry, 1667-1681

Broman, Curt *See* Alm, Elisabet, 1311-1328

Brugger, Joël; McPhail, D. C.; Wallace, Malcolm; and Waters, John. Formation of Willemite in Hydrothermal Environments: 819-835

Brummer, Jon E. *See* John, David A., 425-463

Burrows, David R. *See* Sillitoe, Richard H., 1501-1502

Burton, J. P.; and Fralick, Philip. Depositional Placer Accumulations in Coarse-Grained Alluvial Braided River Systems: 985-1001

Buxton, Mike *See* Borg, Gregor, 749-771

BIBLIOGRAPHY

Abbott, Earl W. *See* Theodore, Ted G., 287-316

Abrams, Michael J. *See* Rowan, Lawrence, 1019-1027

Aguirre, Ramón *See* Henríquez, Fernando, 1497-1500

Alderton, D. H. M. *See* Blundell, D. J., 1487-1495

Allen, Cameron R. *See* Hitzman, Murray W., 685-714

Alm, Elisabet; Broman, Curt; Billstrom, Kjell; Sundblad, Krister; and Torsander, Peter. Fluid Characteristics and Genesis of Early Neoproterozoic Orogenic Gold-Quartz Veins in the Harnas Area, Southwestern Sweden: 1311-1328

Alonso, José Antonio *See* Velasco, Francisco, 1371-1396

Alt, Jeffrey C. *See* Kesler, Stephen E., 1137-1157

Arcuri, Terry; and Brimhall, George. The Chloride Source for Atacamite Mineralization at the Radomiro Tomic Porphyry Copper Deposit, Northern Chile: 1667-1681

Arehart, G. B.; McInnes, B. A.; and Donelick, R. A. Evaluation of Radioisotope Dating of Carlin-Type Deposits in the Great Basin, Western North America, and Implications for Deposit Genesis: 235-248

Arehart, G. B. *See also* Chakurian, A. M., 1159-1171

Armstrong, Augustus K. *See* Peters, Stephen G., 317-337

Armstrong, Richard *See* Borg, Gregor, 749-771

Armstrong, Richard *See* Steven, Nick, 893-909

Arndt, N. T.; Czamanske, G. K.; Walker, R. J.; Chauvel, C.; and Fedorenko, V. A. Geochemistry and Origin of the Intrusive Hosts of the Noril'sk-Talnakh Cu-Ni-PGE Sulfide Deposits: 495-515

Arribas, A. *See* Palero, F. J., 577-605

Aversa, Gaspare *See* Boni, Maria, 731-748

Bailly, Laurent *See* Bellot, Jean-Philippe, 1427-1447

Balassone, Giuseppina *See* Boni, Maria, 731-748

Banks, David A. *See* Grandia, Fidel, 1397-1411

Banks, David A. *See* Grandia, Fidel, 933-954

Banks, David A. *See* Heijlen, Wouter, 911-932

Bellot, Jean-Philippe; Lerouge, Catherine; Bailly, Laurent; and Bouchot, Vincent. The Biards Sb-Au-Bearing Shear Zone (Massif Central, France): An Indicator of Crustal-Scale Transcurrent Tectonics Guiding Late Variscan Collapse: 1427-1447

Berger, Byron R.; Tingley, Joseph V.; and Drew, Lawrence J. Structural Localization and Origin of Compartmentalized Fluid Flow, Comstock Lode, Virginia City, Nevada: 387-408

Berger, Byron R.; King, Trude V. V.; Morath, Laurie C.; and Phillips, Jeffrey D. Utility of High-Altitude Infrared Spectral Data in Mineral Exploration: Application to Northern Patagonia Mountains, Arizona: 1003-1018

Berger, Vladimir I. *See* Theodore, Ted G., 287-316

Betts, Peter G.; Giles, David; and Lister, Gordon S. Tectonic Environment of Shale-Hosted Massive Sulfide Pb-Zn-Ag Deposits of Proterozoic Northeastern Australia: 557-576

Beukes, Nicolas J. *See* Tsikos, Harilaos, 1449-1462

Billstrom, Kjell *See* Alm, Elisabet, 1311-1328

Blundell, D. J.; Karnkowski, P. H.; Alderton, D. H. M.; Oszczepalski, S.; and Kucha, H. Copper Mineralization of the Polish Kupferschiefer: A Proposed Basement Fault-Fracture System of Fluid Flow: 1487-1495

Boden, David R. *See* Castor, Stephen B., 339-366

Boland, M. B.; Kelly, J. G.; and Schaffalitzky, C. The Shaimerden Supergene Zinc Deposit, Kazakhstan: A Preliminary Examination: 787-795

Boni, Maria; and Large, Duncan. Nonsulfide Zinc Mineralization in Europe: An Overview: 715-729

Boni, Maria; Gilg, H. Albert; Aversa, Gaspare; and Balassone, Giuseppina. The "Calamine" of Southwest Sardinia: Geology, Mineralogy, and Stable Isotope Geochemistry of Supergene Zn Mineralization: 731-748

Borg, Gregor; Kärner, Katrin; Buxton, Mike; Armstrong, Richard; and van der Merwe, Schalk W. Geology of the Skorpion Supergene Zinc Deposit, Southern Namibia: 749-771

Borhauer, Jeff *See* Kesler, Stephen E., 1137-1157

Both, R. A. *See* Palero, F. J., 577-605

Bouchot, Vincent *See* Bellot, Jean-Philippe, 1427-1447

Boyce, Adrian J.; Little, Crispin T. S.; and Russell, Michael J. A New Fossil Vent Biota in the Ballynoe Barite Deposit, Silvermines, Ireland: Evidence for Intracratonic Sea-Floor Hydrothermal Activity About 352 Ma: 649-656

Boyce, Adrian J. *See also* Palero, F. J., 577-605

Brimhall, George *See* Arcuri, Terry, 1667-1681

Broman, Curt *See* Alm, Elisabet, 1311-1328

Brugger, Joël; McPhail, D. C.; Wallace, Malcolm; and Waters, John. Formation of Willemite in Hydrothermal Environments: 819-835

Brummer, Jon E. *See* John, David A., 425-463

Burrows, David R. *See* Sillitoe, Richard H., 1501-1502

Burton, J. P.; and Fralick, Philip. Depositional Placer Accumulations in Coarse-Grained Alluvial Braided River Systems: 985-1001

Buxton, Mike *See* Borg, Gregor, 749-771

Caballero, Alberto *See* Perelló, José, 1575-1605

Camprubí, Antoni; Ferrari, Luca; Cosca, Michael A.; Cardellach, Esteve; and Canals, Àngels. Ages of Epithermal Deposits in Mexico: Regional Significance and Links with the Evolution of Tertiary Volcanism: 1029-1037

Canals, Àngels *See* Camprubí, Antoni, 1029-1037

Canals, Àngels *See* Grandia, Fidel, 1397-1411

Canals, Àngels *See* Grandia, Fidel, 933-954

Cardellach, Esteve *See* Camprubí, Antoni, 1029-1037

Cardellach, Esteve *See* Grandia, Fidel, 1397-1411

Cardellach, Esteve *See* Grandia, Fidel, 933-954

Carlotto, Víctor *See* Perelló, José, 1575-1605

Carman, Cris E. *See* Groves, Iain M., 797-818

Carman, Cris E. *See* Hitzman, Murray W., 685-714

Castor, Stephen B.; Boden, David R.; Henry, Christopher D.; Cline, Jean S.; Hofstra, Albert H.; McIntosh, William C.; Tosdal, Richard M.; and Wooden, Joseph P. The Tuscarora Au-Ag District: Eocene Volcanic-Hosted Epithermal Deposits in the Carlin Gold Region, Nevada: 339-366

Castro, L. *See* McCready, A. J., 623-633

Chai Zifang *See* Sun Weidong, 175-180

Chakurian, A. M.; Arehart, G. B.; Donelick, R. A.; Zhang, X.; and Reiners, P. W. Timing Constraints of Gold Mineralization Along the Carlin Trend Utilizing Apatite Fission-Track, $^{40}Ar/^{39}Ar$, and Apatite (U-Th)/He Methods [Includes appendix]: 1159-1171

Chauvel, C. *See* Arndt, N. T., 495-515

Cheng Jiangfeng *See* Sun Weidong, 175-180

Chiaradia, Massimo. The Evolution of Tungsten Sources in Crustal Mineralization from Archean to Tertiary Inferred from Lead Isotopes: 1039-1045

Chisnall, Tony W. *See* Reynolds, Neal A., 773-785

Chryssoulis, Stephen *See* Kesler, Stephen E., 1137-1157

Chryssoulis, Stephen *See* Pals, David W., 479-493

Clark, Alan H. *See* Quang, Chan X., 1683-1696

Cline, J. S. *See* Tosdal, R. M., 1189-1211

Cline, Jean S. *See* Castor, Stephen B., 339-366

Cook, Nigel J. *See* Sundblad, Krister, 1271-1369

Cooke, David R. *See* Lickford, Vanessa, 1607-1636

Cooke, David R. *See* Wilson, Alan J., 1637-1666

Core, Daniel P. *See* Kesler, Stephen E., 1137-1157

Cosca, Michael A. *See* Camprubí, Antoni, 1029-1037

Coveney, Raymond M., Jr. Re-Os Dating of Polymetallic Ni-Mo-PGE-Au Mineralization in Lower Cambrian Black Shales of South China and Its Geological Significance: A Discussion [For reference to original see Mao, J., Lehmann, Bernd, Du, A., Guangdi Zhang, Ma, D., Wang, Y., Mingguo Zeng and Kerrich, R., Econ. Geol., Vol. 97, p. 1051-1061, 2002]: 661-662

Czamanske, G. K. *See* Arndt, N. T., 495-515

Davis, Donald W.; and Lin, Shoufa. Unraveling the Geologic History of the Hemlo Archean Gold Deposit, Superior Province, Canada: A U-Pb Geochronological Study: 51-67

Dobbs, F. Michael *See* Henríquez, Fernando, 1497-1500

Donelick, R. A. *See* Arehart, G. B., 235-248

Donelick, R. A. *See* Chakurian, A. M., 1159-1171

Drew, Lawrence J. *See* Berger, Byron R., 387-408

Du Andao *See* Sun Weidong, 175-180

Dunbar, W. Warren *See* Heitt, Dean G., 1107-1135

Dunlap, W. James *See* Groves, Iain M., 797-818

Eilu, Pasi; Sorjonen-Ward, Peter; Nurmi, Pekka; and Niiranen, Tero. A Review of Gold Mineralization Styles in Finland: 1329-1353

El Rhazi, Mohammed *See* Hayashi, Ken-ichiro, 181-189

Ellam, R. M. *See* Everett, Catherine E., 31-50

Emsbo, Poul; and Hofstra, Albert H. Origin and Significance of Postore Dissolution Collapse Breccias Cemented with Calcite and Barite at the Meikle Gold Deposit, Northern Carlin Trend, Nevada: 1243-1252

Emsbo, Poul; Hofstra, Albert H.; Lauha, Eric A.; Griffin, Gregory L.; and Hutchinson, Richard W. Origin of High-Grade Gold Ore, Source of Ore Fluid Components, and Genesis of the Meikle and Neighboring Carlin-Type Deposits, Northern Carlin Trend, Nevada [Includes appendix]: 1069-1105

Enders, M. Stephen *See* Melchiorre, Erik B., 607-621

Everett, Catherine E.; Rye, D. M.; and Ellam, R. M. Source Or Sink? An Assessment of the Role of the Old Red Sandstone in the Genesis of the Irish Zn-Pb Deposits [Includes appendix]: 31-50

Fairclough, Martin C. *See* Roberts, Michael D., 535-556

Fanning, C. Mark *See* Tosdal, R. M., 1189-1211

Faure, Kevin. δD Values of Fluid Inclusion Water in Quartz and Calcite Ejecta from Active Geothermal Systems: Do Values Reflect Those of Original Hydrothermal Water?: 657-660

Fedorenko, V. A. *See* Arndt, N. T., 495-515

Fernández-Nieto, C.; Torres-Ruiz, J.; Pérez, I. Subías; González, I. Fanlo; and López, J. M. González. Genesis of Mg-Fe Carbonates from the Sierra Menera Magnesite-Siderite Deposits, Northeast Spain: Evidence from Fluid Inclusions, Trace Elements, Rare Earth Elements, and Stable Isotope Data: 1413-1426

Ferrari, Luca *See* Camprubí, Antoni, 1029-1037

Ferreira, Cesar Fonseca *See* Marques, Juliana Charao, 87-108

Fleck, Robert J. *See* John, David A., 425-463

Fortuna, John; Kesler, Stephen E.; and Strenger, David P. Source of Iron for Sulfidation and Gold Deposition, Twin Creeks Carlin-Type Deposit, Nevada: 1213-1224

Fortuna, John *See also* Kesler, Stephen E., 1137-1157

Foster, Andrea L. *See* Theodore, Ted G., 287-316

Fralick, Philip *See* Burton, J. P., 985-1001

Fuster, Nicolás *See* Perelló, José, 1575-1605

Giles, David *See* Betts, Peter G., 557-576

Gilg, H. Albert *See* Boni, Maria, 731-748

Goldfarb, Richard J. *See* Groves, David I., 1-29

Goldfarb, Richard J. *See* Jia, Yiefei, 109-123

Goldfarb, Richard *See* Mao Jingwen, 517-534

González, I. Fanlo *See* Fernández-Nieto, C., 1413-1426

Grandia, Fidel; Cardellach, Esteve; Canals, Àngels; and Banks, David A. Geochemistry of the Fluids Related to Epigenetic Carbon-Hosted Zn-Pb Deposits in the Maestrat Basin, Eastern Spain: Fluid Inclusion and Isotope (Cl, C, O, S, Sr) Evidence: 933-954

Grandía, Fidel; Canals, Àngels; Cardellach, Esteve; Banks, David A.; and Perona, Joaquim. Origin of Ore-Forming Brines in Sediment-Hosted Zn-Pb Deposits of the Basque-Cantabrian Basin, Northern Spain: 1397-1411

Grauch, V. J. S.; Rodriguez, Brian D.; and Wooden, Joseph L. Geophysical and Isotopic Constraints On Crustal Structure Related to Mineral Trends in North-Central Nevada and Implications for Tectonic History: 269-286

Griffin, Gregory L. *See* Emsbo, Poul, 1069-1105

Groves, David I.; Goldfarb, Richard J.; Robert, François; and Hart, Craig J. Gold Deposits in Metamorphic Belts: Overview of Current Understanding, Outstanding Problems, Future Research, and Exploration Significance [Includes appendix]: 1-29

Groves, Iain M.; Carman, Cris E.; and Dunlap, W. James. Geology of the Beltana Willemite Deposit: Flinders Ranges, South Australia: 797-818

Guillén B., Jorge *See* Quang, Chan X., 1683-1696

Harper, Benjamin L. *See* Wilson, Alan J., 1637-1666

Harris, Anita G. *See* Peters, Stephen G., 317-337

Harris, Chris *See* Tsikos, Harilaos, 1449-1462

Hart, Craig J. *See* Groves, David I., 1-29

Hayashi, Ken-ichiro; and El Rhazi, Mohammed. Oxygen Isotope Study of Metamorphosed Manganese Deposits of the Noda-Tamagawa Mine, Northeast Japan: 181-189

He Ying *See* Mao Jingwen, 517-534

Hedenquist, J. W. *See* Meinert, L. D., 147-156

Heijlen, Wouter; Muchez, Philippe; Banks, David A.; Schneider, Jens; Kucha, Henryk; and Keppens, Eddy. Carbonate-Hosted Zn-Pb Deposits in Upper Silesia, Poland: Origin and Evolution of Mineralizing Fluids and Constraints On Genetic Models: 911-932

Heitt, Dean G.; Dunbar, W. Warren; Thompson, Tommy B.; and Jackson, Robert G. Geology and Geochemistry of the Deep Star Gold Deposit, Carlin Trend, Nevada: 1107-1135

Henríquez, Fernando; Naslund, H. Richard; Nystrom, Jan Olov; Vivallo, Waldo; Aguirre, Ramón; Dobbs, F. Michael; and Lledó, Haroldo. New Field Evidence Bearing On the Origin of the El Laco Magnetite Deposit, Northern Chile: A Discussion [For reference to original see Sillitoe, Richard H. and Burrows, David R., Econ. Geol., Vol. 97, p. 1101-1109, 2002]: 1497-1500

Henríquez, Fernando *See also* Naslund, H. Richard, 1047-1049

Henry, Christopher D. *See* Castor, Stephen B., 339-366

Herrero, José Miguel *See* Velasco, Francisco, 1371-1396

Hitman, Murray W. *See* Yigit, Ozcan, 1173-1188

Hitzman, Murray W.; Reynolds, Neal A.; Sangster, D. F.; Allen, Cameron R.; and Carman, Cris E. Classification, Genesis, and Exploration Guides for Nonsulfide Zinc Deposits: 685-714

Hofstra, Albert H.; John, David A.; and Theodore, Ted G. A Special Issue Devoted to Gold Deposits in Northern Nevada: Part 2, Carlin-Type Deposits: 1063-1268

Hofstra, Albert H.; John, David A.; and Theodore, Ted G. A Special Issue Devoted to Gold Deposits in Northern Nevada: Part 2, Carlin-Type Deposits: Preface: 1063-1067

Hofstra, Albert H. *See also* Castor, Stephen B., 339-366

Hofstra, Albert H. *See also* Emsbo, Poul, 1069-1105

Hofstra, Albert H. *See also* Emsbo, Poul, 1243-1252

Hofstra, Albert H. *See also* John, David A., 225-234

Hofstra, Albert H. *See also* John, David A., 225-478

Hofstra, Albert H. *See also* John, David A., 425-463

Hofstra, Albert H. *See also* Nutt, Constance J., 1225-1241

Hofstra, Albert H. *See also* Yigit, Ozcan, 1173-1188

Holtta, Pentti S. *See* Roberts, Michael D., 535-556

Hooke, Simon J. *See* Rowan, Lawrence, 1019-1027

Hou Zengqian; Ma Hongwen; Khin, Zaw; Zhang Yuquan; Wang Mingjie; Wang Zeng; and Pan Guitang. The Himalayan Yulong Porphyry Copper Belt: Product of Large-Scale Strike-Slip Faulting in Eastern Tibet: 125-145

Howard, Keith A. Crustal Structure in the Elko-Carlin Region, Nevada, During Eocene Gold Mineralization: Ruby-East Humboldt Metamorphic Core Complex As a Guide to the Deep Crust: 249-268

Hudson, Donald M. Epithermal Alteration and Mineralization in the Comstock District, Nevada: 367-385

Hutchinson, Richard W. *See* Emsbo, Poul, 1069-1105

Jackson, Robert G. *See* Heitt, Dean G., 1107-1135

Jia, Yiefei; Kerrich, Robert; and Goldfarb, Richard J. Metamorphic Origin of Ore-Forming Fluids for Orogenic Gold-Bearing Quartz Vein Systems in the North American Cordillera: Constraints from a Reconnaissance Study of $\delta^{15}N$, δD, and $\delta^{18}O$: 109-123

John, David A.; Hofstra, Albert H.; and Theodore, Ted G. A Special Issue Devoted to Gold Deposits in Northern Nevada: Part 1, Regional Studies and Epithermal Deposits: Preface: 225-234

John, David A.; Hofstra, Albert H.; Fleck, Robert J.; Brummer, Jon E.; and Saderholm, Eric C. Geologic Setting and Genesis of the Mule Canyon Low-Sulfidation Epithermal Gold-Silver Deposit, North-Central Nevada: 425-463

John, David A.; Hofstra, Albert H.; and Theodore, Ted G. Gold Deposits in Northern Nevada: Part 1, Regional Studies and Epithermal Deposits: 225-478

John, David A. *See also* Hofstra, Albert H., 1063-1067

John, David A. *See also* Hofstra, Albert H., 1063-1268

Johnson, Craig A.; and Skinner, Brian J. Geochemistry of the Furnace Magnetite Bed, Franklin, New Jersey, and the Relationship Between Stratiform Iron Oxide Ores and Stratiform Zinc, Oxide-Silicate Ores in the New Jersey Highlands: 837-854

Kärner, Katrin *See* Borg, Gregor, 749-771

Kaewsang, Kriangsak *See* Reynolds, Neal A., 773-785

Karnkowski, P. H. *See* Blundell, D. J., 1487-1495

Keesaneyabutr, Chanan *See* Reynolds, Neal A., 773-785

Kelly, J. G. *See* Boland, M. B., 787-795

Keppens, Eddy *See* Heijlen, Wouter, 911-932

Kerrich, Robert *See* Jia, Yiefei, 109-123

Kesler, Stephen E.; Fortuna, John; Ye, Zaojun; Alt, Jeffrey C.; Core, Daniel P.; Zohar, Pamela; Borhauer, Jeff; and Chryssoulis, Stephen. Evaluation of the Role of Sulfidation in Deposition of Gold, Screamer Section of the Betze-Post Carlin-Type Deposit, Nevada: 1137-1157

Kesler, Stephen E. *See also* Fortuna, John, 1213-1224

Ketcham, Richard A. *See* Kyle, J. Richard, 1697-1701

Khin, Zaw *See* Hou Zengqian, 125-145

King, Trude V. V. *See* Berger, Byron R., 1003-1018

Kotlyar, Boris B. *See* Theodore, Ted G., 287-316

Kucha, H. *See* Blundell, D. J., 1487-1495

Kucha, Henryk *See* Heijlen, Wouter, 911-932

Kyle, J. Richard; and Ketcham, Richard A. In Situ Distribution of Gold in Ores Using High-Resolution X-Ray Computed Tomography: 1697-1701

López, J. M. González *See* Fernández-Nieto, C., 1413-1426

Lahtinen, Raimmo *See* Roberts, Michael D., 535-556

Large, Duncan *See* Boni, Maria, 715-729

Lauha, Eric A. *See* Emsbo, Poul, 1069-1105

Leach, David *See* Velasco, Francisco, 1371-1396

Lee, James K. W. *See* Quang, Chan X., 1683-1696

Lee, M. J. *See* Wilkinson, J. J., 194-198

Lehmann, Bernd; Mao Jingwen; Li Shenrong; Zhang Guangdi; and Zeng Mingguo. Re-Os Dating of Polymetallic Ni-Mo-PGE-Au Mineralization in Lower Cambrian Black Shales of South China and Its Geological Significance: A Reply [For reference to discussion see Coveney, Raymond M., Jr., Econ. Geol., Vol. 98, No. 3, p. 661-662, May 2003; for reference to original see Mao, J., Lehmann, Bernd, Du., A., Guangdi Zhang, Ma, D., Wang, Y., Mingguo Zeng and Kerrich, R., Econ. Geol., Vol. 97, p. 1051-1061, 2002]: 663-665

Lerouge, Catherine *See* Bellot, Jean-Philippe, 1427-1447

Leveille, Richard A. *See* Mathur, Ryan, 1050-1052

Li Huaqin *See* Lu, Huan-Zhang, 955-974

Li Shenrong *See* Lehmann, Bernd, 663-665

Li Yinqing *See* Mao Jingwen, 517-534

Li, Chusi; Ripley, Edward M.; and Naldrett, Anthony J. Compositional Variations of Olivine and Sulfur Isotopes in the Noril'sk and Talnakh Intrusions, Siberia: Implications for Ore-Forming Processes in Dynamic Magma Conduits: 69-86

Li, Chusi *See also* Ripley, Edward M., 635-641

Lickford, Vanessa; Cooke, David R.; Smith, Stuart G.; and Ullrich, Thomas D. Endeavour Copper-Gold Porphyry Deposits, Northparkes, New South Wales: Intrusive History and Fluid Evolution [Includes appendices]: 1607-1636

Liedó, Haroldo *See* Naslund, H. Richard, 1047-1049

Lin, Shoufa *See* Davis, Donald W., 51-67

Lister, Gordon S. *See* Betts, Peter G., 557-576

Little, Crispin T. S. *See* Boyce, Adrian J., 649-656

Liu Yimao *See* Lu, Huan-Zhang, 955-974

Lledó, Haroldo *See* Henríquez, Fernando, 1497-1500

Lu, Huan-Zhang; Liu Yimao; Wang Changlie; Xu Youzhi; and Li Huaqin. Mineralization and Fluid Inclusion Study of the Shizhuyuan W-Sn-Bi-Mo-F Skarn Deposit, Hunan Province, China: 955-974

Ma Hongwen *See* Hou Zengqian, 125-145

Mangas, J. *See* Palero, F. J., 577-605

Mao Jingwen; Li Yinqing; Goldfarb, Richard; He Ying; and Zaw, Khin. Fluid Inclusion and Noble Gas Studies of the Dongping Gold Deposit, Hebei Province, China: A Mantle Connection for Mineralization?: 517-534

Mao Jingwen *See* Lehmann, Bernd, 663-665

Marques, Juliana Charao; and Ferreira, Cesar Fonseca. The Chromite Deposit of the Ipueira-Medrado Sill, Sao Francisco Craton, Bahia State, Brazil: 87-108

Mars, John C. *See* Rowan, Lawrence, 1019-1027

Marschik, Robert *See* Mathur, Ryan, 1050-1052

Martin, Walter *See* Mathur, Ryan, 1050-1052

Martin-Izard, A. *See* Palero, F. J., 577-605

Mathur, Ryan; Marschik, Robert; Ruiz, Joaquin; Munizaga, Francisco; Leveille, Richard A.; and Martin, Walter. Age of Mineralization of the Candelaria Fe Oxide Cu-Au Deposit and the Origin of the Chilean Iron Belt, Based On Re-Os Isotopes: A Reply [For reference to discussion see Naslund, H. Richard, Liedó, Haroldo and Henríquez, Fernando, Econ. Geol., Vol. 98, No. 5, p. 1047-1049, Aug. 2003; for reference to original see Mathur, Ryan, Marschik, Robert, Ruiz, Joaquin, Munizaga, Francisco, Leveille, Richard A. and Martin, Walter, Econ. Geol., Vol. 97, p. 59-71, 2002]: 1050-1052

Matsuhisa, Y. *See* Meinert, L. D., 147-156

McCready, A. J.; Parnell, J.; and Castro, L. Crystalline Placer Gold from the Rio Neuquén, Argentina: Implications for the Gold Budget in Placer Gold Formation: 623-633

McInnes, B. A. *See* Arehart, G. B., 235-248

McIntosh, William C. *See* Castor, Stephen B., 339-366

McPhail, D. C. *See* Brugger, Joël, 819-835

Meinert, L. D.; Hedenquist, J. W.; Satoh, H.; and Matsuhisa, Y. Formation of Anhydrous and Hydrous Skarn in Cu-Au Ore Deposits By Magmatic Fluids: 147-156

Melcher, F. *See* Schwartz, M. O., 1463-1485

Melchiorre, Erik B.; and Enders, M. Stephen. Stable Isotope Geochemistry of Copper Carbonates at the Northwest Extension Deposit, Morenci District, Arizona: Implications for Conditions of Supergene Oxidation and Related Mineralization: 607-621

Moore, John M. *See* Tsikos, Harilaos, 1449-1462

Morath, Laurie C. *See* Berger, Byron R., 1003-1018

Muchez, Philippe *See* Heijlen, Wouter, 911-932

Muhr, Ricardo *See* Perelló, José, 1575-1605

Munizaga, Francisco *See* Mathur, Ryan, 1050-1052

Naldrett, Anthony J. *See* Li, Chusi, 69-86

Naslund, H. Richard; Liedó, Haroldo; and Henríquez, Fernando. Age of Mineralization of the Candelaria Fe Oxide Cu-Au Deposit and the Origin of the Chilean Iron Belt, Based On Re-Os Isotopes: A Discussion [For reference to original see Mathur, Ryan, Marschik, Robert, Ruiz, Joaquin, Munizaga, Francisco, Leveille, Richard A. and Martin, Walter, Econ. Geol., Vol. 97, p. 59-71, 2002]: 1047-1049

Naslund, H. Richard *See also* Henríquez, Fernando, 1497-1500

Nelson, Eric P. *See* Yigit, Ozcan, 1173-1188

Neyra, Carlos *See* Perelló, José, 1575-1605

Niiranen, Tero *See* Eilu, Pasi, 1329-1353

Noble, Paula J. *See* Peters, Stephen G., 317-337

Nurmi, Pekka *See* Eilu, Pasi, 1329-1353

Nutt, Constance J.; and Hofstra, Albert H. Alligator Ridge District, East-Central Nevada: Carlin-Type Gold Mineralization at Shallow Depths: 1225-1241

Nystrom, Jan Olov *See* Henríquez, Fernando, 1497-1500

Ohmoto, Hiroshi. Nonredox Transformations of Magnetite-Hematite in Hydrothermal Systems: 157-161

Oliver, Nicholas H. S. *See* Roberts, Michael D., 535-556

Oscarson, Robert L. *See* Peters, Stephen G., 317-337

Oszczepalski, S. *See* Blundell, D. J., 1487-1495

Pérez, I. Subías *See* Fernández-Nieto, C., 1413-1426

Palero, F. J.; Both, R. A.; Arribas, A.; Boyce, Adrian J.; Mangas, J.; and Martin-Izard, A. Geology and Metallogenic Evolution of the Polymetallic Deposits of the Alcudia Valley Mineral Field, Eastern Sierra Morena, Spain: 577-605

Pals, David W.; Spry, Paul G.; and Chryssoulis, Stephen. Invisible Gold and Tellurium in Arsenic-Rich Pyrite from the Emperor Gold Deposit, Fiji: Implications for Gold Distribution and Deposition: 479-493

Pan Guitang *See* Hou Zengqian, 125-145

Parnell, J. *See* McCready, A. J., 623-633

Partamies, Sami *See* Poutiainen, Matti, 1355-1369

Perelló, José; Carlotto, Víctor; Zárate, Alberto; Ramos, Pedro; Rosso, Héctor; Neyra, Carlos; Caballero, Alberto; Fuster, Nicolás; and Muhr, Ricardo. Porphyry-Style Alteration and Mineralization of the Middle Eocene to Early Oligocene Andahuaylas-Yauri Belt, Cuzco Region, Peru: 1575-1605

Perona, Joaquim *See* Grandia, Fidel, 1397-1411

Peters, Stephen G.; Armstrong, Augustus K.; Harris, Anita G.; Oscarson, Robert L.; and Noble, Paula J. Biostratigraphy and Structure of Paleozoic Host Rocks and Their Relationship to Carlin-Type Gold Deposits in the Jerritt Canyon Mining District, Nevada: 317-337

Phillips, Jeffrey D. *See* Berger, Byron R., 1003-1018

Poutiainen, Matti; and Partamies, Sami. Fluid Inclusion Characteristics of Auriferous Quartz Veins in Archean and Paleoproterozoic Greenstone Belts of Eastern and Southern Finland: 1355-1369

Prendergast, M. D. The Nickeliferous Late Archean Reliance Komatiitic Event in the Zimbabwe Craton: Magmatic Architecture, Physical Volcanology, and Ore Genesis: 865-891

Proffett, John M. Geology of the Bajo De La Alumbrera Porphyry Copper-Gold Deposit, Argentina: 1535-1574 and 4 sheets

Quang, Chan X.; Clark, Alan H.; Lee, James K. W.; and Guillén B., Jorge. ^{40}Ar-^{39}Ar Ages of Hypogene and Supergene Mineralization in the Cerro Verde-Santa Rosa Porphyry Cu-Mo Cluster, Arequipa, Peru [Includes appendices]: 1683-1696

Ramos, Pedro *See* Perelló, José, 1575-1605

Reed, Chris; and Wallace, Malcolm. Cementation, Hydrothermal Alteration, and Zn-Pb Mineralization of Carbonate Breccias in the Irish Midlands: Textural Evidence from the Cooleen Zone, Near Silvermines, County Tipperary: A Discussion [For reference to original see Lee, M. J. and Wilkinson, J. J., Econ. Geol., Vol. 97, p. 653-662, 2002]: 191-193

Reiners, P. W. *See* Chakurian, A. M., 1159-1171

Reynolds, Neal A.; Chisnall, Tony W.; Kaewsang, Kriangsak; Keesaneyabutr, Chanan; and Taksavasu, Taksorn. The Padaeng Supergene Nonsulfide Zinc Deposit, Mae Sod, Thailand: 773-785

Reynolds, Neal A. *See also* Hitzman, Murray W., 685-714

Richards, Jeremy P. Tectono-Magmatic Precursors for Porphyry Cu-(Mo-Au) Deposit Formation: 1515-1533

Ripley, Edward M.; and Li, Chusi. Sulfur Isotope Exchange and Metal Enrichment in the Formation of Magmatic Cu-Ni-(PGE) Deposits: 635-641

Ripley, Edward M. *See also* Li, Chusi, 69-86

Robert, François *See* Groves, David I., 1-29

Roberts, Michael D.; Oliver, Nicholas H. S.; Fairclough, Martin C.; Holtta, Pentti S.; and Lahtinen, Raimmo. Geochemical and Oxygen Isotope Signature of Sea-Floor Alteration Associated with a Polydeformed and Highly Metamorphosed Massive Sulfide Deposit, Ruostesuo, Central Finland: 535-556

Rodriguez, Brian D. *See* Grauch, V. J. S., 269-286

Rosso, Héctor *See* Perelló, José, 1575-1605

Rowan, Lawrence; Hooke, Simon J.; Abrams, Michael J.; and Mars, John C. Mapping Hydrothermally Altered Rocks at Cuprite, Nevada, Using the Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER), a New Satellite-Imaging System: 1019-1027

Roy, Peter S.; and Whitehouse, John. Changing Pliocene Sea Levels and Formation of Heavy Mineral Beach Placers in the Murray Basin, Southeastern Australia: 975-983

Ruiz, Joaquin *See* Mathur, Ryan, 1050-1052

Russell, Michael J. *See* Boyce, Adrian J., 649-656

Rye, D. M. *See* Everett, Catherine E., 31-50

Saderholm, Eric C. *See* John, David A., 425-463

Sangster, D. F. Nonsulfide Zinc Deposits: A New Look: 683-864

Sangster, D. F. *See also* Hitzman, Murray W., 685-714

Satoh, H. *See* Meinert, L. D., 147-156

Schaffalitzky, C. *See* Boland, M. B., 787-795

Schneider, Jens *See* Heijlen, Wouter, 911-932

Schwartz, M. O.; and Melcher, F. The Perkoa Zinc Deposit, Burkina Faso: 1463-1485

Seebold, Ignacio *See* Velasco, Francisco, 1371-1396

Sillitoe, Richard H.; and Burrows, David R. New Field Evidence Bearing On the Origin of the El Laco Magnetite Deposit, Northern Chile: A Reply [For reference to discussion see Henríquez, Fernando, Naslund, H. Richard, Nystrom, Jan Olov, Vivallo, Waldo, Aguirre, Ramón, Dobbs, F. Michael and Lledó, Haroldo, Econ. Geol., Vol. 98, No. 7, p. 1497-1500, Nov. 2003; for reference to original see Sillitoe, Richard H. and Burrows, David R., Econ. Geol., Vol. 97, p. 1101-1109, 2002]: 1501-1502

Singer, Donald A. *See* Theodore, Ted G., 287-316

Sisson, T. W. Native Gold in a Hawaiian Alkalic Magma: 643-648

Skinner, Brian J. *See* Johnson, Craig A., 837-854

Smith, Stuart G. *See* Lickford, Vanessa, 1607-1636

Sorjonen-Ward, Peter *See* Eilu, Pasi, 1329-1353

Sorjonen-Ward, Peter *See* Weihed, Par, 1291-1309

Spiro, Baruch *See* Wilson, Nicholas S. F., 163-174

Spry, Paul G. *See* Pals, David W., 479-493

Steven, Nick; and Armstrong, Richard. A Metamorphosed Proterozoic Carbonaceous Shale-Hosted Co-Ni-Cu Deposit at Kalumbila, Kabompo Dome: The Copperbelt Ore Shale in Northwestern Zambia: 893-909

Strenger, David P. *See* Fortuna, John, 1213-1224

Sun Weidong; Cheng Jiangfeng; Xun Zhang; Chai Zifang; Du Andao; Zhao Junshen; Zhang Chenghuo; and Zhou Taofa. Os-Os Dating of Copper and Molybdenum Deposits Along the Middle and Lower Reaches of the Yangtze River, China: 175-180

Sundblad, Krister; and Cook, Nigel J. A Group of Papers Devoted to the Metallogeny of Gold in the Fennoscandian Shield: 1271-1369

Sundblad, Krister. Metallogeny of Gold in the Precambrian of Northern Europe: 1271-1290

Sundblad, Krister *See also* Alm, Elisabet, 1311-1328

Taksavasu, Taksorn *See* Reynolds, Neal A., 773-785

Theodore, Ted G.; Kotlyar, Boris B.; Singer, Donald A.; Berger, Vladimir I.; Abbott, Earl W.; and Foster, Andrea L. Applied Geochemistry, Geology, and Mineralogy of the Northernmost Carlin Trend, Nevada: 287-316

Theodore, Ted G. *See also* Hofstra, Albert H., 1063-1067

Theodore, Ted G. *See also* Hofstra, Albert H., 1063-1268

Theodore, Ted G. *See also* John, David A., 225-234

Theodore, Ted G. *See also* John, David A., 225-478

Thompson, Tommy B. *See* Heitt, Dean G., 1107-1135

Tingley, Joseph V. *See* Berger, Byron R., 387-408

Torres-Ruiz, J. *See* Fernández-Nieto, C., 1413-1426

Torsander, Peter *See* Alm, Elisabet, 1311-1328

Tosdal, R. M.; Cline, J. S.; Fanning, C. Mark; and Wooden, J. L. Lead in the Getchell-Turquoise Ridge Carlin-Type Gold Deposits from the Perspective of Potential Igneous and Sedimentary Rocks

Sources in Northern Nevada: Implications for Fluid and Metal Sources [Univ. of British Columbia, Mineral Deposit Res. Unit contrib. No. 160]: 1189-1211

Tosdal, Richard M. *See also* Castor, Stephen B., 339-366

Tsikos, Harilaos; Beukes, Nicolas J.; Moore, John M.; and Harris, Chris. Deposition, Diagenesis, and Secondary Enrichment of Metals in the Paleoproterozoic Hotazel Iron Formation, Kalahari Manganese Field, South Africa: 1449-1462

Ullrich, Thomas D. *See* Lickford, Vanessa, 1607-1636

van der Merwe, Schalk W. *See* Borg, Gregor, 749-771

Velasco, Francisco; Herrero, José Miguel; Yusta, Iñaki; Alonso, José Antonio; Seebold, Ignacio; and Leach, David. Geology and Geochemistry of the Reocín Zinc-Lead Deposit, Basque-Cantabrian Basin, Northern Spain: 1371-1396

Vivallo, Waldo *See* Henríquez, Fernando, 1497-1500

Walker, R. J. *See* Arndt, N. T., 495-515

Wallace, Alan R. Geology of the Ivanhoe Hg-Au District, Northern Nevada: Influence of Miocene Volcanism, Lakes, and Active Faulting On Epithermal Mineralization: 409-424

Wallace, Malcolm *See* Brugger, Joël, 819-835

Wallace, Malcolm *See* Reed, Chris, 191-193

Wang Changlie *See* Lu, Huan-Zhang, 955-974

Wang Mingjie *See* Hou Zengqian, 125-145

Wang Zeng *See* Hou Zengqian, 125-145

Waters, John *See* Brugger, Joël, 819-835

Weihed, Jeanette Bergman *See* Weihed, Par, 1291-1309

Weihed, Par; Weihed, Jeanette Bergman; and Sorjonen-Ward, Peter. Structural Evolution of the Bjorkdal Gold Deposit, Skellefte District, Northern Sweden: Implications for Early Proterozoic Mesothermal Gold in the Late Stage of the Svecokarelian Orogen: 1291-1309

Whitehouse, John *See* Roy, Peter S., 975-983

Wilkinson, J. J.; and Lee, M. J. Cementation, Hydrothermal Alteration, and Zn-Pb Mineralization of Carbonate Breccias in the Irish Midlands: Textural Evidence from the Cooleen Zone, Near Silvermines, County Tipperary: A Reply [For reference to discussion see Reed, Chris, and Wallace, Malcolm, Econ. Geol., Vol. 98, No. 1, p. 191-193, Feb. 2003; for reference to original see Lee, M. J. and Wilkinson, J. J., Econ. Geol., Vol. 97, p. 653-662, 2002]: 194-198

Wilson, Alan J.; Cooke, David R.; and Harper, Benjamin L. The Ridgeway Gold-Copper Deposit: A High-Grade Alkalic Porphyry Deposit in the Lachlan Fold Belt, New South Wales, Australia: 1637-1666

Wilson, Nicholas S. F.; Zentilli, Marcos; and Spiro, Baruch. A Sulfur, Carbon, Oxygen, and Strontium Isotope Study of the Volcanic-Hosted El Soldado Manto-Type Copper Deposit, Chile: The Essential Role of Bacteria and Petroleum: 163-174

Wooden, J. L. *See* Tosdal, R. M., 1189-1211

Wooden, Joseph L. *See* Grauch, V. J. S., 269-286

Wooden, Joseph P. *See* Castor, Stephen B., 339-366

Xu Youzhi *See* Lu, Huan-Zhang, 955-974

Xun Zhang *See* Sun Weidong, 175-180

Ye, Zaojun *See* Kesler, Stephen E., 1137-1157

Yigit, Ozcan; Nelson, Eric P.; Hitman, Murray W.; and Hofstra, Albert H. Structural Controls On Carlin-Type Gold Mineralization in the Gold Bar District, Eureka County, Nevada: 1173-1188

Yusta, Iñaki *See* Velasco, Francisco, 1371-1396

Zárate, Alberto *See* Perelló, José, 1575-1605

Zaw, Khin *See* Mao Jingwen, 517-534

Zeng Mingguo *See* Lehmann, Bernd, 663-665

Zentilli, Marcos *See* Wilson, Nicholas S. F., 163-174

Zhang Chenghuo *See* Sun Weidong, 175-180

Zhang Guangdi *See* Lehmann, Bernd, 663-665

Zhang Yuquan *See* Hou Zengqian, 125-145

Zhang, X. *See* Chakurian, A. M., 1159-1171

Zhao Junshen *See* Sun Weidong, 175-180

Zhou Taofa *See* Sun Weidong, 175-180

SUBJECT INDEX

Abean Orogeny *see* Hercynian Orogeny
absolute age *see* Ar/Ar; K/Ar; Rb/Sr; Re/Os; Sm/Nd; Th/U; U/Pb; U/Th/Pb
absolute dating *see* absolute age
abyssolith *see* batholiths
active faults
  Nevada, metal ores
    Wallace, Alan R., 409
actual age (absolute age) *see* absolute age
adularia
  metal ores
    John, David A., 425
  Nevada, metal ores
    Arehart, G. B., 235
    Castor, Stephen B., 339
    Wallace, Alan R., 409
Africa *see* East Africa; Southern Africa; West Africa
Agnotozoic *see* Proterozoic
Airborne Visible-Infrared Imaging Spectrometer *see* AVIRIS
Alaska
  gold ores
    Jia, Yiefei, 109
albitization
  Finland, metal ores
    Eilu, Pasi, 1329
Alcudia Valley mineral field
  metal ores
    Palero, F. J., 577
alkali basalts *see* basanite
alkali feldspar *see* adularia; sanidine
alkali gabbros *see* nephelinite
alkanes *see* methane
Alligator Ridge mining district
  gold ores
    Nutt, Constance J., 1225
alluvial plains
  economic geology
    Burton, J. P., 985
Altiplano
  metal ores
    Perelló, José, 1575
Alto de la Blenda Stock
  metal ores
    Proffett, John M., 1535
amphibole group *see* clinoamphibole
amphibolite facies
  Finland, metal ores
    Roberts, Michael D., 535
  Ontario, gold ores
    Davis, Donald W., 51
anastomosing streams *see* braided streams
Andahuaylas-Yauri Batholith
  metal ores
    Perelló, José, 1575
Andahuaylas-Yauri Belt
  metal ores
    Perelló, José, 1575
Andes *see also* Altiplano; Argentina; Chile; Peru; Puna
  copper ores
    Arcuri, Terry, 1667
  metal ores
    Quang, Chan X., 1683
andesite porphyry
  Argentina, metal ores
    Richards, Jeremy P., 1515
  Chile, metal ores
    Proffett, John M., 1535
  United States, metal ores
    Richards, Jeremy P., 1515
andesites
  Peru
    Perelló, José, 1575
antimony ores
  France
    Bellot, Jean-Philippe, 1427
Antler Orogeny
  Nevada, gold ores
    Peters, Stephen G., 317
apatite
  Chile, metal ores
    Mathur, Ryan, 1050
    Naslund, H. Richard, 1047
  Nevada, gold ores
    Chakurian, A. M., 1159
apparent polar wandering
  Queensland Australia, metal ores
    Betts, Peter G., 557
Aptian
  Spain
    Grandia, Fidel, 933
aquifers
  Ireland, metal ores
    Everett, Catherine E., 31
Ar-40/Ar-36
  gold ores
    Mao Jingwen, 517
Ar/Ar
  Andes, metal ores
    Quang, Chan X., 1683
  Chile, metal ores
    Proffett, John M., 1535
  Mexico, base metals
    Camprubí, Antoni, 1029
  Nevada
    gold ores
      Chakurian, A. M., 1159
      Heitt, Dean G., 1107
    metal ores
      Castor, Stephen B., 339
      Wallace, Alan R., 409
  New South Wales Australia, metal ores
    Lickford, Vanessa, 1607
Archean
  Chiaradia, Massimo, 1039
  Mao Jingwen, 517
  Europe
    Poutiainen, Matti, 1355
  Ontario
    Davis, Donald W., 51
arcs, island *see* island arcs
Arctic region *see also* Greenland
  gold ores, Svalbard
    Sundblad, Krister, 1271
Argentina
  metal ores
    Richards, Jeremy P., 1515
    Neuquen Basin
      McCready, A. J., 623
argon
  Ar-40/Ar-36, gold ores
    Mao Jingwen, 517
argon-argon *see* Ar/Ar
Arizona
  metal ores
    Berger, Byron R., 1003
    Melchiorre, Erik B., 607
Arrowie Basin
  metal ores
    Groves, Iain M., 797
arsenic
  Fiji, gold ores
    Pals, David W., 479
arsenic ores
  Groves, Iain M., 797
As *see* arsenic
ash-flow tuff
  Nevada, metal ores
    Hudson, Donald M., 367
Asia *see also* Central Asia; Far East; Himalayas
  metal ores
    Richards, Jeremy P., 1515
    Norilsk region
      Arndt, N. T., 495
      Li, Chusi, 69
    Siberia
      Li, Chusi, 69
asthenosphere
  gold ores
    Mao Jingwen, 517
Atacama Desert
  copper ores
    Arcuri, Terry, 1667
atacamite
  Chile, copper ores
    Arcuri, Terry, 1667
Atlantic Ocean
  metal ores, Bay of Biscay
    Velasco, Francisco, 1371
Au *see* gold
Australasia *see* New Zealand; Papua New Guinea
Australia *see also* Murray Basin; New South Wales Australia; Queensland Australia; South Australia
  metal ores
    Groves, David I., 1
    Lachlan fold belt
      Lickford, Vanessa, 1607
      Wilson, Alan J., 1637
AVIRIS
  Arizona, metal ores
    Berger, Byron R., 1003
back-arc basins
  Australia, metal ores
    Groves, David I., 1
  Queensland Australia, metal ores
    Betts, Peter G., 557
Bajo de la Alumbrera Deposit
  metal ores
    Proffett, John M., 1535
Ballynoe Deposit
  economic geology
    Boyce, Adrian J., 649
Baltic Shield *see also* Svecofennian Orogeny
  gold ores
    Poutiainen, Matti, 1355
    Sundblad, Krister, 1271
banded iron formations
  metal ores
    Ohmoto, Hiroshi, 157
barite
  Nevada, gold ores
    Emsbo, Poul, 1243

barite deposits
Australia
Groves, David I., 1
Ireland
Boyce, Adrian J., 649
Everett, Catherine E., 31
Barneys Canyon Deposit
metal ores
Arehart, G. B., 235
barometry, geologic *see* geologic barometry
basalts *see* alkali basalts; flood basalts; mid-ocean ridge basalts
basanite
Hawaii, gold ores
Sisson, T. W., 643
basculating faults *see* wrench faults
base metals *see also* copper ores; lead ores; zinc ores
Mexico
Camprubí, Antoni, 1029
Nevada
Theodore, Ted G., 287
basement tectonics
metal ores
Blundell, D. J., 1487
Basin and Range Province *see also* Great Basin; Utah
gold ores
Peters, Stephen G., 317
basins *see also* back-arc basins; pull-apart basins
Ontario, gold ores
Davis, Donald W., 51
batholiths
Peru, metal ores
Perelló, José, 1575
Bay of Biscay
metal ores
Velasco, Francisco, 1371
Beltana Deposit
metal ores
Brugger, Joël, 819
Groves, Iain M., 797
belts, greenstone *see* greenstone belts
Benioff zone
Chile, metal ores
Proffett, John M., 1535
Betze-Post Deposit
gold ores
Chakurian, A. M., 1159
Kesler, Stephen E., 1137
BIFs *see* banded iron formations
Big Gossan Deposit
metal ores
Meinert, L. D., 147
Bingham Deposit
metal ores
Arehart, G. B., 235
biopelite *see* black shale
biostratigraphy
Nevada, gold ores
Peters, Stephen G., 317
biotite
Nevada, metal ores
Castor, Stephen B., 339
Birimian
Burkina Faso
Schwartz, M. O., 1463
Biscay Bay *see* Bay of Biscay
bitter spar *see* dolomite
bituminous shale *see* black shale
Bjorkdal Deposit
gold ores
Weihed, Par, 1291
black shale
China, metal ores
Coveney, Raymond M., Jr., 661
Lehmann, Bernd, 663
bloating shale *see* shale
blue lead *see* galena
Boddington Deposit
metal ores
Groves, David I., 1
boudinage
metal ores
Berger, Byron R., 387
Bouguer anomalies
Nevada, gold ores
Grauch, V. J. S., 269
braided streams
economic geology
Burton, J. P., 985
Brazil
chromite ores, Sao Francisco Craton
Marques, Juliana Charao, 87
metal ores
Brugger, Joël, 819
breccia
Ireland, metal ores
Reed, Chris, 191
Wilkinson, J. J., 194
Nevada, gold ores
Emsbo, Poul, 1243
brines
Blundell, D. J., 1487
Chile
Mathur, Ryan, 1050
Wilson, Nicholas S. F., 163
New South Wales Australia
Wilson, Alan J., 1637
Spain
Grandia, Fidel, 1397
Palero, F. J., 577
British Columbia
gold ores
Jia, Yiefei, 109
Broadlands
economic geology
Faure, Kevin, 657
Burkina Faso
zinc ores
Schwartz, M. O., 1463
C-13/C-12
Arizona, metal ores
Melchiorre, Erik B., 607
Chile, metal ores
Wilson, Nicholas S. F., 163
gold ores
Nutt, Constance J., 1225
Italy, metal ores
Boni, Maria, 731
manganese ores
Tsikos, Harilaos, 1449
metal ores
John, David A., 425
Nevada, gold ores
Emsbo, Poul, 1069
Emsbo, Poul, 1243
New Jersey, metal ores
Johnson, Craig A., 837
Spain, metal ores
Fernández-Nieto, C., 1413
Grandia, Fidel, 933
Palero, F. J., 577
cadmium ores
Groves, Iain M., 797
calcite
Nevada, gold ores
Emsbo, Poul, 1243
New Zealand, economic geology
Faure, Kevin, 657
Caledonia Mine
metal ores
Berger, Byron R., 387
Caledonides
gold ores
Sundblad, Krister, 1271
California
gold ores
Jia, Yiefei, 109
Cambrian
Groves, Iain M., 797
China
Coveney, Raymond M., Jr., 661
Lehmann, Bernd, 663
Nevada
Peters, Stephen G., 317
Canada *see* Eastern Canada; Western Canada
Canadian Shield
gold ores, Superior Province
Davis, Donald W., 51
Candelaria Deposit
metal ores
Mathur, Ryan, 1050
Cantabrian Basin
metal ores
Grandia, Fidel, 1397
Velasco, Francisco, 1371
Cantabrian Sea *see* Bay of Biscay
carbon
C-13/C-12
Arizona
Melchiorre, Erik B., 607
Chile
Wilson, Nicholas S. F., 163
gold ores
Nutt, Constance J., 1225
Italy
Boni, Maria, 731
manganese ores
Tsikos, Harilaos, 1449
metal ores
John, David A., 425
Nevada
Emsbo, Poul, 1069
Emsbo, Poul, 1243
New Jersey
Johnson, Craig A., 837
Spain
Fernández-Nieto, C., 1413
Grandia, Fidel, 933
Palero, F. J., 577
carbon dioxide
Arizona, metal ores
Melchiorre, Erik B., 607
Australia, metal ores
Groves, David I., 1
Europe, gold ores
Poutiainen, Matti, 1355
gold ores
Mao Jingwen, 517
metal ores
John, David A., 425
Sweden, gold ores
Alm, Elisabet, 1311

carbonaceous shale *see* black shale
carbonate rocks *see also* dolostone; limestone
Brazil, metal ores
Brugger, Joël, 819
gold ores
Yigit, Ozcan, 1173
New Jersey, metal ores
Brugger, Joël, 819
Poland, metal ores
Heijlen, Wouter, 911
South Australia, metal ores
Brugger, Joël, 819
Spain, metal ores
Fernández-Nieto, C., 1413
Zambia, metal ores
Brugger, Joël, 819
carbonates *see also* calcite; dolomite; magnesite; siderite
Arizona
Melchiorre, Erik B., 607
Italy, metal ores
Boni, Maria, 731
carbonatization *see* dolomitization
Carboniferous *see also* Hercynian Orogeny; Mississippian
Ireland
Reed, Chris, 191
Wilkinson, J. J., 194
Carlin East Deposit
gold ores
Chakurian, A. M., 1159
Carlin Mine
gold ores
Chakurian, A. M., 1159
Carlin Trend
gold ores
Chakurian, A. M., 1159
Emsbo, Poul, 1069
Emsbo, Poul, 1243
Grauch, V. J. S., 269
Heitt, Dean G., 1107
Howard, Keith A., 249
metal ores
Castor, Stephen B., 339
Theodore, Ted G., 287
carlin-type deposits
gold ores
Nutt, Constance J., 1225
Tosdal, R. M., 1189
Yigit, Ozcan, 1173
Nevada
gold ores
Emsbo, Poul, 1069
Emsbo, Poul, 1243
Fortuna, John, 1213
Hofstra, Albert H., 1063
Kesler, Stephen E., 1137
Peters, Stephen G., 317
metal ores
Arehart, G. B., 235
Castor, Stephen B., 339
John, David A., 225
carst *see* karst
cathodoluminescence
Emsbo, Poul, 1243
Cedar Lake Pluton
gold ores
Davis, Donald W., 51
Cenozoic *see* Quaternary; Tertiary
Central Asia *see* Kazakhstan
Central Europe *see* Poland; Silesia
central granite *see* batholiths
Central Massif
metal ores
Bellot, Jean-Philippe, 1427
Century Deposit
metal ores
Betts, Peter G., 557
Cerro Iman Deposit
metal ores
Naslund, H. Richard, 1047
Cerro Negro Norte Deposit
metal ores
Naslund, H. Richard, 1047
Cerro Verde Deposit
metal ores
Quang, Chan X., 1683
chain silicates *see* amphibole group
chalcopyrite
Arizona, metal ores
Melchiorre, Erik B., 607
Sweden, gold ores
Alm, Elisabet, 1311
chalybite *see* siderite
chambers, magma *see* magma chambers
chemically precipitated rocks *see* evaporites; iron formations; siliceous sinter
chemostratigraphy
Finland, metal ores
Roberts, Michael D., 535
manganese ores
Tsikos, Harilaos, 1449
Chile *see also* Puna
copper ores, Atacama Desert
Arcuri, Terry, 1667
iron ores
Henríquez, Fernando, 1497
Sillitoe, Richard H., 1501
metal ores
Mathur, Ryan, 1050
Naslund, H. Richard, 1047
Wilson, Nicholas S. F., 163
China
metal ores
Coveney, Raymond M., Jr., 661
Lehmann, Bernd, 663
chlorides *see* atacamite; halite
chlorine
Cl-37/Cl-35
Chile
Arcuri, Terry, 1667
Spain
Grandia, Fidel, 933
chloritization
Finland, metal ores
Roberts, Michael D., 535
chromite ores
Brazil
Marques, Juliana Charao, 87
Cl-37/Cl-35
Chile, copper ores
Arcuri, Terry, 1667
Spain, metal ores
Grandia, Fidel, 933
clastic rocks *see* black shale; red beds; shale; siltstone
clay
Nevada, gold ores
Emsbo, Poul, 1069
climatology, paleo- *see* paleoclimatology
clinoamphibole *see* hornblende
CO2 *see* carbon dioxide
Coastal Batholith
metal ores
Quang, Chan X., 1683
cobalt ores
Zambia
Steven, Nick, 893
colloquia *see* symposia
common salt *see* halite
Commonwealth of Independent States *see* Kazakhstan; Urals
compartmentalization
metal ores
Berger, Byron R., 387
compression tectonics
Australia, metal ores
Groves, David I., 1
Comstock Lode
metal ores
Berger, Byron R., 387
Comstock mining district
metal ores
Berger, Byron R., 387
Hudson, Donald M., 367
conferences *see* symposia
connectivity
metal ores
Berger, Byron R., 387
contact metamorphism
Indonesia, metal ores
Meinert, L. D., 147
contamination, magma *see* magma contamination
continental crust
Argentina, metal ores
Richards, Jeremy P., 1515
Nevada, gold ores
Grauch, V. J. S., 269
United States, metal ores
Richards, Jeremy P., 1515
continental margin
Canada, gold ores
Jia, Yiefei, 109
United States, gold ores
Jia, Yiefei, 109
continental-type crust *see* continental crust
Cooleen Zone
metal ores
Reed, Chris, 191
Wilkinson, J. J., 194
copper ores *see also* porphyry copper
Blundell, D. J., 1487
Ripley, Edward M., 635
Sun Weidong, 175
Chile
Mathur, Ryan, 1050
Naslund, H. Richard, 1047
Wilson, Nicholas S. F., 163
Finland
Eilu, Pasi, 1329
Roberts, Michael D., 535
Indonesia
Meinert, L. D., 147
Nevada
Arehart, G. B., 235
Castor, Stephen B., 339
Hudson, Donald M., 367
Russian Federation
Arndt, N. T., 495
Li, Chusi, 69

Spain
Palero, F. J., 577
Zambia
Steven, Nick, 893
copper pyrites *see* chalcopyrite
Copperbelt
metal ores
Steven, Nick, 893
core complexes *see* metamorphic core complexes
Cretaceous
Hayashi, Ken-ichiro, 181
Mao Jingwen, 517
Sun Weidong, 175
Aptian, Spain
Grandia, Fidel, 933
Chile
Mathur, Ryan, 1050
Wilson, Nicholas S. F., 163
Poland
Heijlen, Wouter, 911
Spain
Velasco, Francisco, 1371
crust
continental crust
Argentina
Richards, Jeremy P., 1515
Nevada
Grauch, V. J. S., 269
United States
Richards, Jeremy P., 1515
Finland, metal ores
Eilu, Pasi, 1329
lower crust
Nevada
Howard, Keith A., 249
Utah
Howard, Keith A., 249
oceanic crust
Argentina
Richards, Jeremy P., 1515
Nevada
Grauch, V. J. S., 269
United States
Richards, Jeremy P., 1515
tungsten ores
Chiaradia, Massimo, 1039
crustal shortening
Nevada, gold ores
Peters, Stephen G., 317
Peru, metal ores
Perelló, José, 1575
Sweden, gold ores
Weihed, Par, 1291
crustal thinning
Nevada, gold ores
Howard, Keith A., 249
Utah, gold ores
Howard, Keith A., 249
Cuprite mining district
mineral resources
Rowan, Lawrence, 1019
D/H
Canada, gold ores
Jia, Yiefei, 109
France, metal ores
Bellot, Jean-Philippe, 1427
gold ores
Nutt, Constance J., 1225
Indonesia, metal ores
Meinert, L. D., 147
metal ores
John, David A., 425
Nevada, gold ores
Emsbo, Poul, 1069
New Zealand, economic geology
Faure, Kevin, 657
tungsten ores
Lu, Huan-Zhang, 955
United States, gold ores
Jia, Yiefei, 109
decalcification
gold ores
Yigit, Ozcan, 1173
decrepitation
Faure, Kevin, 657
Poutiainen, Matti, 1355
Dee Deposit
metal ores
Theodore, Ted G., 287
Deep Star Deposit
gold ores
Heitt, Dean G., 1107
deformation *see also* boudinage; extension tectonics; folds; fractures
Argentina, metal ores
Richards, Jeremy P., 1515
Chile, metal ores
Proffett, John M., 1535
Finland, metal ores
Roberts, Michael D., 535
New South Wales Australia, metal ores
Wilson, Alan J., 1637
Ontario, gold ores
Davis, Donald W., 51
Peru, metal ores
Perelló, José, 1575
Spain, metal ores
Palero, F. J., 577
Sweden, gold ores
Alm, Elisabet, 1311
United States, metal ores
Richards, Jeremy P., 1515
Denison Mine
economic geology
Burton, J. P., 985
Devonian *see also* Antler Orogeny
Nutt, Constance J., 1225
Tosdal, R. M., 1189
Yigit, Ozcan, 1173
dextral faults *see* right-lateral faults
diagenesis *see also* dolomitization
Ireland, metal ores
Everett, Catherine E., 31
Reed, Chris, 191
Wilkinson, J. J., 194
manganese ores
Tsikos, Harilaos, 1449
Nevada, gold ores
Fortuna, John, 1213
Kesler, Stephen E., 1137
Spain, metal ores
Palero, F. J., 577
diagonal-slip faults *see* oblique-slip faults
diaphthoresis *see* retrograde metamorphism
dikes
Burkina Faso, zinc ores
Schwartz, M. O., 1463
metal ores
Berger, Byron R., 387
Nevada, gold ores
Howard, Keith A., 249
New South Wales Australia, metal ores
Lickford, Vanessa, 1607
Wilson, Alan J., 1637
Ontario, gold ores
Davis, Donald W., 51
Utah, gold ores
Howard, Keith A., 249
Dinantian *see* Waulsortian facies
dolomite
Nevada, gold ores
Emsbo, Poul, 1069
dolomitite *see* dolostone
dolomitization
Spain, metal ores
Fernández-Nieto, C., 1413
Velasco, Francisco, 1371
dolostone
Spain, metal ores
Grandia, Fidel, 933
Dongping Deposit
gold ores
Mao Jingwen, 517
dunite
Brazil, chromite ores
Marques, Juliana Charao, 87
Duoxiasongduo Deposit
copper ores
Hou Zengqian, 125
Dutch East Indies *see* Indonesia
Dutch New Guinea *see* Irian Jaya Indonesia
dykes *see* dikes
Earth Observing System
mineral resources
Rowan, Lawrence, 1019
earthquakes
metal ores
Blundell, D. J., 1487
East Africa *see* Zambia
Eastern Canada *see* Ontario
Eburnean (age) *see* Birimian
economic geology *see* antimony ores; arsenic ores; barite deposits; base metals; brines; cadmium ores; chromite ores; cobalt ores; copper ores; heavy mineral deposits; hematite; iron ores; lead ores; lead-zinc deposits; manganese ores; mercury ores; mineral resources; molybdenum ores; nickel ores; petroleum; platinum ores; polymetallic ores; shale; silver ores; tungsten ores; zinc ores
Eire *see* Ireland
El Hoyo Mine
metal ores
Palero, F. J., 577
El Laco Deposit
iron ores
Henríquez, Fernando, 1497
Sillitoe, Richard H., 1501
El Romeral Deposit
metal ores
Naslund, H. Richard, 1047
El Soldado Deposit
metal ores
Wilson, Nicholas S. F., 163
Emperor Deposit
gold ores
Pals, David W., 479
Endeavour Deposit
metal ores
Lickford, Vanessa, 1607
engineering geology *see* earthquakes
entrainment *see* transport
Eocene
Italy
Boni, Maria, 731

Nevada
Arehart, G. B., 235
Castor, Stephen B., 339
Chakurian, A. M., 1159
Heitt, Dean G., 1107
Howard, Keith A., 249
Peru
Perelló, José, 1575
Utah
Howard, Keith A., 249
Eogene *see* Paleogene
EOS (Earth Observing System) *see* Earth Observing System
epigene processes
Scandinavia, gold ores
Sundblad, Krister, 1271
Spain, metal ores
Grandia, Fidel, 933
Velasco, Francisco, 1371
epithermal processes
Australia, metal ores
Groves, David I., 1
Finland, metal ores
Eilu, Pasi, 1329
metal ores
Berger, Byron R., 387
John, David A., 425
Mexico, base metals
Camprubí, Antoni, 1029
Nevada
gold ores
John, David A., 225
metal ores
Castor, Stephen B., 339
Hudson, Donald M., 367
John, David A., 225
Wallace, Alan R., 409
New Zealand, economic geology
Faure, Kevin, 657
erosion surfaces
Andes, metal ores
Quang, Chan X., 1683
Ertsberg mining district
metal ores
Kyle, J. Richard, 1697
Meinert, L. D., 147
eruptive rocks *see* volcanic rocks
Eu *see* europium
Europe *see also* Central Europe; Southern Europe; Western Europe
gold ores
Baltic Shield
Poutiainen, Matti, 1355
Sundblad, Krister, 1271
Kola Peninsula
Sundblad, Krister, 1271
metal ores, Lapland Finland
Eilu, Pasi, 1329
zinc ores, Silesia
Boni, Maria, 715
europium
Spain, metal ores
Fernández-Nieto, C., 1413
evaporites
Chile, copper ores
Arcuri, Terry, 1667
exhalative processes
Ireland, economic geology
Boyce, Adrian J., 649
exhumation
Nevada, gold ores
Howard, Keith A., 249
Sweden, gold ores
Alm, Elisabet, 1311
Utah, gold ores
Howard, Keith A., 249
extension faults
Ireland, metal ores
Everett, Catherine E., 31
Nevada, gold ores
Howard, Keith A., 249
Queensland Australia, metal ores
Betts, Peter G., 557
Utah, gold ores
Howard, Keith A., 249
extension tectonics
France, metal ores
Bellot, Jean-Philippe, 1427
metal ores
Berger, Byron R., 387
Nevada, gold ores
Grauch, V. J. S., 269
Howard, Keith A., 249
Queensland Australia, metal ores
Betts, Peter G., 557
Utah, gold ores
Howard, Keith A., 249
facies *see* amphibolite facies; granulite facies
Far East *see* China; Indonesia; Thailand
Farallon Negro volcanic field
metal ores
Proffett, John M., 1535
fault zones
Nevada, gold ores
Grauch, V. J. S., 269
faults *see also* deformation; fractures; shear zones
active faults, Nevada
Wallace, Alan R., 409
extension faults
Ireland
Everett, Catherine E., 31
Nevada
Howard, Keith A., 249
Queensland Australia
Betts, Peter G., 557
Utah
Howard, Keith A., 249
high-angle faults
gold ores
Yigit, Ozcan, 1173
Nevada
Peters, Stephen G., 317
Wallace, Alan R., 409
lateral faults, metal ores
Berger, Byron R., 387
left-lateral faults, France
Bellot, Jean-Philippe, 1427
Nevada
gold ores
Chakurian, A. M., 1159
metal ores
Hudson, Donald M., 367
normal faults
gold ores
Yigit, Ozcan, 1173
metal ores
Berger, Byron R., 387
Blundell, D. J., 1487
oblique-slip faults, metal ores
Berger, Byron R., 387
reverse faults, gold ores
Yigit, Ozcan, 1173
right-lateral faults, Himalayas
Hou Zengqian, 125
strike-slip faults, Himalayas
Hou Zengqian, 125
thrust faults, Nevada
Theodore, Ted G., 287
transcurrent faults, France
Bellot, Jean-Philippe, 1427
transverse faults, metal ores
Berger, Byron R., 387
wrench faults, France
Bellot, Jean-Philippe, 1427
Fe *see* iron
feldspar group *see* alkali feldspar; plagioclase
Fennoscandian Shield *see* Baltic Shield
fields, geothermal *see* geothermal fields
Fiji
gold ores, Viti Levu
Pals, David W., 479
Finland *see also* Baltic Shield
metal ores
Roberts, Michael D., 535
Lapland Finland
Eilu, Pasi, 1329
fission tracks
Nevada
gold ores
Chakurian, A. M., 1159
metal ores
Arehart, G. B., 235
flood basalts
Russian Federation, metal ores
Arndt, N. T., 495
Li, Chusi, 69
fluid inclusions *see also* carbon dioxide; geologic thermometry; paleosalinity
France
Bellot, Jean-Philippe, 1427
Nevada, metal ores
Castor, Stephen B., 339
Poland, metal ores
Heijlen, Wouter, 911
Spain, metal ores
Grandia, Fidel, 933
Grandia, Fidel, 1397
Palero, F. J., 577
Sweden, gold ores
Weihed, Par, 1291
tungsten ores
Lu, Huan-Zhang, 955
fluids, ore-forming *see* ore-forming fluids
fluorite
gold ores
Tosdal, R. M., 1189
fluvial features *see* alluvial plains
fluvial sediments *see* stream sediments
folds
Nevada, gold ores
Peters, Stephen G., 317
overturned folds, gold ores
Yigit, Ozcan, 1173
foliation
Sweden, gold ores
Weihed, Par, 1291
formations, iron *see* iron formations
fractures
metal ores
Berger, Byron R., 387
Blundell, D. J., 1487
Nevada, gold ores
Heitt, Dean G., 1107

framework silicates *see* feldspar group; silica minerals
France
metal ores, Central Massif
Bellot, Jean-Philippe, 1427
Franklin Deposit
metal ores
Brugger, Joël, 819
Johnson, Craig A., 837
Furnace Magnetite
metal ores
Johnson, Craig A., 837
gabbros *see* alkali gabbros
galena *see also* lead ores
Sweden, gold ores
Alm, Elisabet, 1311
galkhaite
Nevada, metal ores
Arehart, G. B., 235
Gallipoli Deposit
economic geology
Roy, Peter S., 975
gas inclusions *see* fluid inclusions
genesis of mineral deposits *see* mineral deposits, genesis
geobarometry *see* geologic barometry
geochemical anomalies
Himalayas, copper ores
Hou Zengqian, 125
Nevada, metal ores
Theodore, Ted G., 287
Spain, metal ores
Fernández-Nieto, C., 1413
geochemical methods
metal ores
Boland, M. B., 787
Naslund, H. Richard, 1047
geochronology *see* absolute age; Archean; Cambrian; Carboniferous; Cretaceous; Devonian; Eocene; Jurassic; Mesozoic; Miocene; Mississippian; Oligocene; Ordovician; Paleogene; Paleozoic; Phanerozoic; Pleistocene; Pliocene; Precambrian; Proterozoic; Tertiary; Triassic
geologic barometry
Nevada, gold ores
Howard, Keith A., 249
Utah, gold ores
Howard, Keith A., 249
geologic thermometry *see also* C-13/C-12
New South Wales Australia, metal ores
Lickford, Vanessa, 1607
Wilson, Alan J., 1637
New Zealand, economic geology
Faure, Kevin, 657
geological barometry *see* geologic barometry
geomorphology *see also* erosion surfaces; sea-level changes
Peru, metal ores
Perelló, José, 1575
geophysical methods
AVIRIS, Arizona
Berger, Byron R., 1003
gravity methods, gold ores
Weihed, Par, 1291
magnetic methods, gold ores
Grauch, V. J. S., 269
magnetotelluric methods, gold ores
Grauch, V. J. S., 269
geophysical profiles *see* seismic profiles
geophysical surveys *see* Bouguer anomalies; gravity methods; magnetic methods; magnetotelluric methods; seismic methods
geostatic pressure *see* lithostatic pressure
geosynclines *see* miogeosynclines
geotectonics *see* tectonics
geothermal fields *see* Broadlands
geothermal gradient
Nevada, gold ores
Howard, Keith A., 249
Queensland Australia, metal ores
Betts, Peter G., 557
Utah, gold ores
Howard, Keith A., 249
geothermal surveys *see* heat flow
geothermometry *see* geologic thermometry
German Southwest Africa *see* Namibia
Getchell Deposit
gold ores
Tosdal, R. M., 1189
Getchell Mine
metal ores
Arehart, G. B., 235
Ginkgo Deposit
economic geology
Roy, Peter S., 975
glasses *see* volcanic glass
glassy feldspar *see* sanidine
gneisses *see also* orthogneiss
Andes, metal ores
Quang, Chan X., 1683
New Jersey, metal ores
Johnson, Craig A., 837
goethite
Spain, metal ores
Fernández-Nieto, C., 1413
gold
Argentina, metal ores
McCready, A. J., 623
Fiji
Pals, David W., 479
Hawaii
Sisson, T. W., 643
Indonesia, metal ores
Kyle, J. Richard, 1697
Papua New Guinea, metal ores
Kyle, J. Richard, 1697
Gold Bar Deposit
gold ores
Yigit, Ozcan, 1173
Gold Bar mining district
gold ores
Yigit, Ozcan, 1173
gold ores *see also* carlin-type deposits
Berger, Byron R., 387
John, David A., 425
Mao Jingwen, 517
Sun Weidong, 175
Argentina
McCready, A. J., 623
Richards, Jeremy P., 1515
Australia
Groves, David I., 1
Canada
Jia, Yiefei, 109
Chile
Mathur, Ryan, 1050
Naslund, H. Richard, 1047
Proffett, John M., 1535
China
Coveney, Raymond M., Jr., 661
Lehmann, Bernd, 663
Europe
Poutiainen, Matti, 1355
Fiji
Pals, David W., 479
Finland
Eilu, Pasi, 1329
France
Bellot, Jean-Philippe, 1427
Greenland
Sundblad, Krister, 1271
Hawaii
Sisson, T. W., 643
Indonesia
Kyle, J. Richard, 1697
Meinert, L. D., 147
Nevada
Chakurian, A. M., 1159
Grauch, V. J. S., 269
Heitt, Dean G., 1107
Howard, Keith A., 249
Hudson, Donald M., 367
John, David A., 225
Theodore, Ted G., 287
Wallace, Alan R., 409
New South Wales Australia
Lickford, Vanessa, 1607
Wilson, Alan J., 1637
New Zealand
Faure, Kevin, 657
Ontario
Davis, Donald W., 51
Papua New Guinea
Kyle, J. Richard, 1697
Peru
Perelló, José, 1575
Scandinavia
Sundblad, Krister, 1271
Sweden
Alm, Elisabet, 1311
Weihed, Par, 1291
Ukraine
Sundblad, Krister, 1271
United States
Jia, Yiefei, 109
Richards, Jeremy P., 1515
Utah
Howard, Keith A., 249
Golfo de Vizcaya *see* Bay of Biscay
Gondwana *see* Laurasia
Gondwanaland *see* Gondwana
Goonumbla Complex
metal ores
Lickford, Vanessa, 1607
gossan
Burkina Faso, zinc ores
Schwartz, M. O., 1463
Spain, metal ores
Fernández-Nieto, C., 1413
gothite *see* goethite
granites *see also* granodiorites; monzogranite
metal ores
Sun Weidong, 175
tungsten ores
Lu, Huan-Zhang, 955
granodiorites
Andes, metal ores
Quang, Chan X., 1683
Chile, copper ores
Arcuri, Terry, 1667
Peru, metal ores
Perelló, José, 1575

granulite facies
Finland, metal ores
Roberts, Michael D., 535
Grasberg Deposit
metal ores
Kyle, J. Richard, 1697
gravity faults *see* normal faults
gravity methods *see also* Bouguer anomalies
gold ores
Weihed, Par, 1291
Great Basin
metal ores
Arehart, G. B., 235
Greenland
gold ores
Sundblad, Krister, 1271
greenstone belts
Europe, gold ores
Poutiainen, Matti, 1355
Scandinavia, gold ores
Sundblad, Krister, 1271
ground pressure *see* lithostatic pressure
ground water *see* aquifers; hydrothermal alteration
groundwater *see* ground water
Gulf of Gascony *see* Bay of Biscay
halides *see* chlorides; fluorides
halite
Europe, gold ores
Poutiainen, Matti, 1355
Harnas Deposit
gold ores
Alm, Elisabet, 1311
Harrison Pass Pluton
gold ores
Howard, Keith A., 249
harzburgite
Brazil, chromite ores
Marques, Juliana Charao, 87
Hawaii
gold ores, Kilauea
Sisson, T. W., 643
Hawaii Island *see* Kilauea
He-4/He-3
gold ores
Mao Jingwen, 517
heat flow *see also* geothermal gradient
metal ores
Berger, Byron R., 387
Blundell, D. J., 1487
heavy mineral deposits
Burton, J. P., 985
Australia
Roy, Peter S., 975
helium
He-4/He-3, gold ores
Mao Jingwen, 517
hematite
Ohmoto, Hiroshi, 157
Hemlo Deposit
gold ores
Davis, Donald W., 51
Hemlo-Heron Bay greenstone belt
gold ores
Davis, Donald W., 51
Hercynian Orogeny
France, metal ores
Bellot, Jean-Philippe, 1427
Spain, metal ores
Palero, F. J., 577
high field strength elements *see* high-field-strength elements
high-angle faults
gold ores
Yigit, Ozcan, 1173
Nevada
gold ores
Peters, Stephen G., 317
metal ores
Wallace, Alan R., 409
high-field-strength elements
Finland, metal ores
Roberts, Michael D., 535
Himalaya Mountains *see* Himalayas
Himalayan Orogeny
Himalayas, copper ores
Hou Zengqian, 125
Hollinger-McIntyre Deposit
metal ores
Groves, David I., 1
hornblende
Nevada, metal ores
Castor, Stephen B., 339
Humboldt County Nevada *see* Getchell Mine
Huronian
Burton, J. P., 985
HYC Deposit
metal ores
Betts, Peter G., 557
hydrocarbons *see* aliphatic hydrocarbons
hydrogen
D/H
Canada
Jia, Yiefei, 109
France
Bellot, Jean-Philippe, 1427
gold ores
Nutt, Constance J., 1225
Indonesia
Meinert, L. D., 147
metal ores
John, David A., 425
Nevada
Emsbo, Poul, 1069
New Zealand
Faure, Kevin, 657
tungsten ores
Lu, Huan-Zhang, 955
United States
Jia, Yiefei, 109
hydrogeology *see* ground water; thermal waters
hydrothermal alteration *see also* ore-forming fluids
Argentina, metal ores
Richards, Jeremy P., 1515
Brazil, metal ores
Brugger, Joël, 819
Chile
copper ores
Arcuri, Terry, 1667
metal ores
Proffett, John M., 1535
Europe, zinc ores
Boni, Maria, 715
Ireland, metal ores
Reed, Chris, 191
Wilkinson, J. J., 194
metal ores
Hitzman, Murray W., 685
mineral resources
Rowan, Lawrence, 1019
Nevada
gold ores
Fortuna, John, 1213
metal ores
Hudson, Donald M., 367
New Jersey, metal ores
Brugger, Joël, 819
New South Wales Australia, metal ores
Lickford, Vanessa, 1607
Wilson, Alan J., 1637
Peru, metal ores
Perelló, José, 1575
South Australia, metal ores
Brugger, Joël, 819
tungsten ores
Chiaradia, Massimo, 1039
Lu, Huan-Zhang, 955
United States, metal ores
Richards, Jeremy P., 1515
Zambia, metal ores
Brugger, Joël, 819
hypergene processes *see* supergene processes
Iberian Peninsula *see* Spain
igneous rocks
andesite porphyry
Argentina
Richards, Jeremy P., 1515
Chile
Proffett, John M., 1535
United States
Richards, Jeremy P., 1515
andesites, Peru
Perelló, José, 1575
ash-flow tuff, Nevada
Hudson, Donald M., 367
basanite, Hawaii
Sisson, T. W., 643
dunite, Brazil
Marques, Juliana Charao, 87
flood basalts, Russian Federation
Arndt, N. T., 495
Li, Chusi, 69
gold ores
Tosdal, R. M., 1189
granites
metal ores
Sun Weidong, 175
tungsten ores
Lu, Huan-Zhang, 955
granodiorites
Andes
Quang, Chan X., 1683
Chile
Arcuri, Terry, 1667
Peru
Perelló, José, 1575
harzburgite, Brazil
Marques, Juliana Charao, 87
komatiite, Zimbabwe
Prendergast, M. D., 865
mid-ocean ridge basalts, Burkina Faso
Schwartz, M. O., 1463
monzogranite, Mexico
Camprubí, Antoni, 1029
monzonites, New South Wales Australia
Lickford, Vanessa, 1607
Wilson, Alan J., 1637
nephelinite, Hawaii
Sisson, T. W., 643
porphyry
Argentina

Richards, Jeremy P., 1515
Chile
Proffett, John M., 1535
New South Wales Australia
Lickford, Vanessa, 1607
United States
Richards, Jeremy P., 1515
volcanic glass, Hawaii
Sisson, T. W., 643
volcanic rocks
Chile
Wilson, Nicholas S. F., 163
gold ores
Nutt, Constance J., 1225
Nevada
Castor, Stephen B., 339
New South Wales Australia
Lickford, Vanessa, 1607
Wilson, Alan J., 1637
image analysis
mineral resources
Rowan, Lawrence, 1019
inclusions *see* fluid inclusions
Indonesia
metal ores
Kyle, J. Richard, 1697
Irian Jaya Indonesia
Meinert, L. D., 147
infrared methods *see* AVIRIS
inner transition elements *see* rare earths
Interesting papers in other journals
titles, 201, 467, 671, 855, 1055, 1257, 1503, 1707
intrusions
Andes, metal ores
Quang, Chan X., 1683
Argentina, metal ores
Richards, Jeremy P., 1515
Australia, metal ores
Groves, David I., 1
batholiths, Peru
Perelló, José, 1575
Chile
copper ores
Arcuri, Terry, 1667
metal ores
Proffett, John M., 1535
dikes
Burkina Faso
Schwartz, M. O., 1463
metal ores
Berger, Byron R., 387
Nevada
Howard, Keith A., 249
New South Wales Australia
Lickford, Vanessa, 1607
Wilson, Alan J., 1637
Ontario
Davis, Donald W., 51
Utah
Howard, Keith A., 249
Indonesia, metal ores
Kyle, J. Richard, 1697
metal ores
Sun Weidong, 175
Papua New Guinea, metal ores
Kyle, J. Richard, 1697
plutons
Ontario
Davis, Donald W., 51
Sweden
Weihed, Par, 1291
Russian Federation, metal ores
Arndt, N. T., 495
sills
Brazil
Marques, Juliana Charao, 87
Russian Federation
Li, Chusi, 69
Zimbabwe
Prendergast, M. D., 865
United States, metal ores
Richards, Jeremy P., 1515
intrusive mountain *see* batholiths
ion probe data *see* SHRIMP data
Ipueira-Medrado Sill
chromite ores
Marques, Juliana Charao, 87
Ireland
economic geology
Boyce, Adrian J., 649
metal ores
Everett, Catherine E., 31
Tipperary Ireland
Reed, Chris, 191
Wilkinson, J. J., 194
Irian Jaya Indonesia
metal ores
Meinert, L. D., 147
iron
metal ores
Ohmoto, Hiroshi, 157
Nevada, gold ores
Fortuna, John, 1213
Spain, metal ores
Velasco, Francisco, 1371
iron formations *see also* banded iron formations
manganese ores
Tsikos, Harilaos, 1449
iron ores *see also* hematite
Chile
Henríquez, Fernando, 1497
Sillitoe, Richard H., 1501
New Jersey
Johnson, Craig A., 837
Spain
Fernández-Nieto, C., 1413
iron oxides
Chile, metal ores
Mathur, Ryan, 1050
Naslund, H. Richard, 1047
iron-formations *see* iron formations
irruption (intrusion) *see* intrusions
island arcs
Argentina, metal ores
Richards, Jeremy P., 1515
New South Wales Australia, metal ores
Wilson, Alan J., 1637
United States, metal ores
Richards, Jeremy P., 1515
isotope fractionation
Hayashi, Ken-ichiro, 181
Palero, F. J., 577
isotopes
Ar-40/Ar-36, gold ores
Mao Jingwen, 517
C-13/C-12
Arizona
Melchiorre, Erik B., 607
Chile
Wilson, Nicholas S. F., 163
gold ores
Nutt, Constance J., 1225
Italy
Boni, Maria, 731
manganese ores
Tsikos, Harilaos, 1449
metal ores
John, David A., 425
Nevada
Emsbo, Poul, 1069
Emsbo, Poul, 1243
New Jersey
Johnson, Craig A., 837
Spain
Fernández-Nieto, C., 1413
Grandia, Fidel, 933
Palero, F. J., 577
Cl-37/Cl-35
Chile
Arcuri, Terry, 1667
Spain
Grandia, Fidel, 933
D/H
Canada
Jia, Yiefei, 109
France
Bellot, Jean-Philippe, 1427
gold ores
Nutt, Constance J., 1225
Indonesia
Meinert, L. D., 147
metal ores
John, David A., 425
Nevada
Emsbo, Poul, 1069
New Zealand
Faure, Kevin, 657
tungsten ores
Lu, Huan-Zhang, 955
United States
Jia, Yiefei, 109
He-4/He-3, gold ores
Mao Jingwen, 517
N-15/N-14
Canada
Jia, Yiefei, 109
United States
Jia, Yiefei, 109
Nd-144/Nd-143
Himalayas
Hou Zengqian, 125
Russian Federation
Arndt, N. T., 495
tungsten ores
Lu, Huan-Zhang, 955
New South Wales Australia, metal ores
Lickford, Vanessa, 1607
O-18/O-16
Canada
Jia, Yiefei, 109
Chile
Arcuri, Terry, 1667
Wilson, Nicholas S. F., 163
Finland
Roberts, Michael D., 535
France
Bellot, Jean-Philippe, 1427
gold ores
Nutt, Constance J., 1225
Indonesia

Meinert, L. D., 147
Italy
Boni, Maria, 731
manganese ores
Hayashi, Ken-ichiro, 181
Tsikos, Harilaos, 1449
metal ores
John, David A., 425
Nevada
Emsbo, Poul, 1069
Emsbo, Poul, 1243
New Jersey
Johnson, Craig A., 837
Spain
Fernández-Nieto, C., 1413
Grandia, Fidel, 933
Palero, F. J., 577
Sweden
Alm, Elisabet, 1311
tungsten ores
Lu, Huan-Zhang, 955
United States
Jia, Yiefei, 109
Os-187/Os-186
Chile
Naslund, H. Richard, 1047
metal ores
Sun Weidong, 175
Os-188/Os-187
Chile
Mathur, Ryan, 1050
metal ores
Sun Weidong, 175
Russian Federation
Arndt, N. T., 495
Pb-206/Pb-204
gold ores
Tosdal, R. M., 1189
Himalayas
Hou Zengqian, 125
Ireland
Everett, Catherine E., 31
Nevada
Castor, Stephen B., 339
Russian Federation
Arndt, N. T., 495
Pb-207/Pb-204
gold ores
Tosdal, R. M., 1189
Himalayas
Hou Zengqian, 125
Ireland
Everett, Catherine E., 31
Nevada
Castor, Stephen B., 339
Russian Federation
Arndt, N. T., 495
Pb-208/Pb-204
Himalayas
Hou Zengqian, 125
Ireland
Everett, Catherine E., 31
Nevada
Castor, Stephen B., 339
Russian Federation
Arndt, N. T., 495
Pb-208/Pb-206, gold ores
Tosdal, R. M., 1189
S-34/S-32
Andes
Quang, Chan X., 1683
Burkina Faso
Schwartz, M. O., 1463
Chile
Wilson, Nicholas S. F., 163
France
Bellot, Jean-Philippe, 1427
gold ores
Nutt, Constance J., 1225
Ireland
Boyce, Adrian J., 649
metal ores
John, David A., 425
Ripley, Edward M., 635
Nevada
Castor, Stephen B., 339
Emsbo, Poul, 1243
Kesler, Stephen E., 1137
Russian Federation
Li, Chusi, 69
Spain
Grandia, Fidel, 933
Palero, F. J., 577
Velasco, Francisco, 1371
Sweden
Alm, Elisabet, 1311
Sm-147/Nd-144, tungsten ores
Lu, Huan-Zhang, 955
Sr-87/Sr-86
Chile
Wilson, Nicholas S. F., 163
Himalayas
Hou Zengqian, 125
Nevada
Grauch, V. J. S., 269
Russian Federation
Arndt, N. T., 495
Spain
Grandia, Fidel, 933
Th-232, tungsten ores
Chiaradia, Massimo, 1039
Italy
metal ores, Sardinia Italy
Boni, Maria, 731
zinc ores, Sardinia Italy
Boni, Maria, 715
Ivanhoe mining district
metal ores
Wallace, Alan R., 409
Jacurici Complex
chromite ores
Marques, Juliana Charao, 87
Jerritt Canyon mining district
gold ores
Peters, Stephen G., 317
metal ores
Arehart, G. B., 235
Jurassic
Mao Jingwen, 517
Canada
Jia, Yiefei, 109
Chile
Arcuri, Terry, 1667
Thailand
Reynolds, Neal A., 773
United States
Jia, Yiefei, 109
K/Ar
Nevada, metal ores
Arehart, G. B., 235
Wallace, Alan R., 409
Peru, metal ores
Perelló, José, 1575
Kabompo Dome
metal ores
Steven, Nick, 893
Kabwe Deposit
metal ores
Brugger, Joël, 819
Kalahari manganese field
manganese ores
Tsikos, Harilaos, 1449
Kalumbila Deposit
metal ores
Steven, Nick, 893
karst
metal ores
Hitzman, Murray W., 685
Spain, metal ores
Velasco, Francisco, 1371
Kazakhstan *see* Urals
Kilauea
gold ores
Sisson, T. W., 643
Kola Peninsula
gold ores
Sundblad, Krister, 1271
komatiite
Zimbabwe, nickel ores
Prendergast, M. D., 865
Koodoovale Unit
nickel ores
Prendergast, M. D., 865
Krasnoyarsk Russian Federation *see* Taymyr Dolgan-Nenets Russian Federation
Kupferschiefer
metal ores
Blundell, D. J., 1487
Kutemajarvi Deposit
metal ores
Eilu, Pasi, 1329
La Nava Mine
metal ores
Palero, F. J., 577
Laburnum Deposit
economic geology
Roy, Peter S., 975
Lachlan fold belt
metal ores
Lickford, Vanessa, 1607
Wilson, Alan J., 1637
lanthanoans *see* rare earths
Lapland Finland
metal ores
Eilu, Pasi, 1329
lateral faults *see also* left-lateral faults; right-lateral faults
metal ores
Berger, Byron R., 387
Laurasia
France, metal ores
Bellot, Jean-Philippe, 1427
lava
Russian Federation, metal ores
Arndt, N. T., 495
Li, Chusi, 69
lead
Nevada, gold ores
Grauch, V. J. S., 269
Pb-206/Pb-204
gold ores
Tosdal, R. M., 1189
Himalayas

Hou Zengqian, 125
Ireland
Everett, Catherine E., 31
Nevada
Castor, Stephen B., 339
Russian Federation
Arndt, N. T., 495
Pb-207/Pb-204
gold ores
Tosdal, R. M., 1189
Himalayas
Hou Zengqian, 125
Ireland
Everett, Catherine E., 31
Nevada
Castor, Stephen B., 339
Russian Federation
Arndt, N. T., 495
Pb-208/Pb-204
Himalayas
Hou Zengqian, 125
Ireland
Everett, Catherine E., 31
Nevada
Castor, Stephen B., 339
Russian Federation
Arndt, N. T., 495
Pb-208/Pb-206, gold ores
Tosdal, R. M., 1189
lead glance *see* galena
lead ores *see also* lead-zinc deposits; mississippi valley-type deposits
Australia
Groves, David I., 1
Ireland
Boyce, Adrian J., 649
Nevada
Castor, Stephen B., 339
Hudson, Donald M., 367
Queensland Australia
Betts, Peter G., 557
Spain
Palero, F. J., 577
lead-zinc deposits *see also* mississippi valley-type deposits
Groves, Iain M., 797
Sangster, D. F., 683
Brazil
Brugger, Joël, 819
Ireland
Everett, Catherine E., 31
Reed, Chris, 191
Wilkinson, J. J., 194
Italy
Boni, Maria, 731
Kazakhstan
Boland, M. B., 787
New Jersey
Brugger, Joël, 819
Johnson, Craig A., 837
Poland
Heijlen, Wouter, 911
South Australia
Brugger, Joël, 819
Zambia
Brugger, Joël, 819
left-lateral faults
France, metal ores
Bellot, Jean-Philippe, 1427
limestone
Ireland, metal ores
Everett, Catherine E., 31
mineral resources
Rowan, Lawrence, 1019
Spain, metal ores
Grandia, Fidel, 933
lineaments
Chile, copper ores
Arcuri, Terry, 1667
lithogeochemistry *see* fluid inclusions; sedimentary rocks
lithostatic pressure
metal ores
John, David A., 425
lithostratigraphy
Ontario, gold ores
Davis, Donald W., 51
Queensland Australia, metal ores
Betts, Peter G., 557
Zimbabwe, nickel ores
Prendergast, M. D., 865
Longhushan Deposit
metal ores
Sun Weidong, 175
Lower Carboniferous *see* Dinantian
Lower Cretaceous *see* Aptian
lower crust
Nevada, gold ores
Howard, Keith A., 249
Utah, gold ores
Howard, Keith A., 249
lower Neogene *see* Miocene
lower Precambrian *see* Archean
Maestrat Basin
metal ores
Grandia, Fidel, 933
magma chambers
Brazil, chromite ores
Marques, Juliana Charao, 87
Russian Federation, metal ores
Li, Chusi, 69
magma contamination
Russian Federation, metal ores
Arndt, N. T., 495
magmas *see also* magma chambers; volcanology
Argentina
Richards, Jeremy P., 1515
Chile
copper ores
Arcuri, Terry, 1667
metal ores
Proffett, John M., 1535
Hawaii, gold ores
Sisson, T. W., 643
Himalayas, copper ores
Hou Zengqian, 125
Indonesia, metal ores
Meinert, L. D., 147
Nevada, gold ores
Heitt, Dean G., 1107
New South Wales Australia, metal ores
Wilson, Alan J., 1637
United States, metal ores
Richards, Jeremy P., 1515
magmatism
Argentina, metal ores
Richards, Jeremy P., 1515
Australia, metal ores
Groves, David I., 1
gold ores
Nutt, Constance J., 1225
Himalayas, copper ores
Hou Zengqian, 125
Nevada, gold ores
Grauch, V. J. S., 269
Howard, Keith A., 249
Spain, metal ores
Palero, F. J., 577
Sweden, gold ores
Weihed, Par, 1291
United States, metal ores
Richards, Jeremy P., 1515
Utah, gold ores
Howard, Keith A., 249
magnesian spar *see* dolomite
magnesite
Spain, metal ores
Fernández-Nieto, C., 1413
magnesium ores
Spain
Fernández-Nieto, C., 1413
magnetic iron ore *see* magnetite
magnetic methods
gold ores
Grauch, V. J. S., 269
magnetite *see also* iron ores
Chile, metal ores
Mathur, Ryan, 1050
Naslund, H. Richard, 1047
magnetotelluric methods
gold ores
Grauch, V. J. S., 269
Malasongduo Deposit
copper ores
Hou Zengqian, 125
manganese
Tsikos, Harilaos, 1449
manganese ores
Groves, Iain M., 797
Hayashi, Ken-ichiro, 181
Tsikos, Harilaos, 1449
New Jersey
Johnson, Craig A., 837
mantle *see also* asthenosphere
Argentina, metal ores
Richards, Jeremy P., 1515
United States, metal ores
Richards, Jeremy P., 1515
mantos
Chile, metal ores
Wilson, Nicholas S. F., 163
maps
surficial geology maps, Chile
Proffett, John M., 1535
margin, continental *see* continental margin
marine sedimentation
Chile, copper ores
Arcuri, Terry, 1667
mass spectra *see* ion probe data
Massif Central *see* Central Massif
massive sulfide deposits
Australia, metal ores
Groves, David I., 1
Burkina Faso, zinc ores
Schwartz, M. O., 1463
Finland, metal ores
Eilu, Pasi, 1329
Roberts, Michael D., 535
Ireland, economic geology
Boyce, Adrian J., 649
Queensland Australia, metal ores
Betts, Peter G., 557
Sweden, gold ores
Weihed, Par, 1291

McArthur Basin
metal ores
Betts, Peter G., 557
meetings *see* symposia
Meikle Deposit
gold ores
Emsbo, Poul, 1069
Emsbo, Poul, 1243
Meikle Mine
gold ores
Emsbo, Poul, 1069
Melanesia *see* Fiji
mercury ores
Australia
Groves, David I., 1
Nevada
Wallace, Alan R., 409
mesothermal processes
Sweden, gold ores
Weihed, Par, 1291
Mesozoic *see also* Cretaceous; Jurassic; Triassic
Nevada
Howard, Keith A., 249
Peru
Perelló, José, 1575
Utah
Howard, Keith A., 249
metal ores *see* antimony ores; arsenic ores; base metals; cadmium ores; chromite ores; cobalt ores; copper ores; gold ores; iron ores; lead ores; lead-zinc deposits; magnesium ores; manganese ores; mercury ores; molybdenum ores; nickel ores; platinum ores; polymetallic ores; silver ores; tungsten ores; zinc ores
metallogeny
Andes, metal ores
Quang, Chan X., 1683
Argentina, metal ores
Richards, Jeremy P., 1515
Chile
copper ores
Arcuri, Terry, 1667
metal ores
Proffett, John M., 1535
Greenland, gold ores
Sundblad, Krister, 1271
Indonesia, metal ores
Kyle, J. Richard, 1697
Nevada, gold ores
Emsbo, Poul, 1243
New South Wales Australia, metal ores
Lickford, Vanessa, 1607
Wilson, Alan J., 1637
Papua New Guinea, metal ores
Kyle, J. Richard, 1697
Peru, metal ores
Perelló, José, 1575
Poland, metal ores
Heijlen, Wouter, 911
Scandinavia, gold ores
Sundblad, Krister, 1271
Ukraine, gold ores
Sundblad, Krister, 1271
United States, metal ores
Richards, Jeremy P., 1515
metals *see also* arsenic; gold; iron; lead; manganese; rare earths
precious metals, Nevada
Hudson, Donald M., 367
Theodore, Ted G., 287
metamorphic belts *see* greenstone belts
metamorphic core complexes
gold ores
Nutt, Constance J., 1225
Nevada, gold ores
Howard, Keith A., 249
Utah, gold ores
Howard, Keith A., 249
metamorphic processes *see* metamorphism
metamorphic rocks *see also* amphibolite facies; granulite facies; metasomatic rocks
Australia, metal ores
Groves, David I., 1
gneisses
Andes
Quang, Chan X., 1683
New Jersey
Johnson, Craig A., 837
orthogneiss, Sweden
Alm, Elisabet, 1311
metamorphism
Canada, gold ores
Jia, Yiefei, 109
contact metamorphism, Indonesia
Meinert, L. D., 147
Europe, gold ores
Poutiainen, Matti, 1355
Finland, metal ores
Roberts, Michael D., 535
prograde metamorphism, Indonesia
Meinert, L. D., 147
regional metamorphism
Burkina Faso
Schwartz, M. O., 1463
gold ores
Mao Jingwen, 517
Ontario
Davis, Donald W., 51
retrograde metamorphism, Indonesia
Meinert, L. D., 147
United States, gold ores
Jia, Yiefei, 109
metasomatic rocks
skarn
Finland
Eilu, Pasi, 1329
Indonesia
Meinert, L. D., 147
New South Wales Australia
Wilson, Alan J., 1637
Peru
Perelló, José, 1575
Scandinavia
Sundblad, Krister, 1271
tungsten ores
Lu, Huan-Zhang, 955
metasomatism
albitization, Finland
Eilu, Pasi, 1329
chloritization, Finland
Roberts, Michael D., 535
hydrothermal alteration
Argentina
Richards, Jeremy P., 1515
Brazil
Brugger, Joël, 819
Chile
Arcuri, Terry, 1667
Proffett, John M., 1535
Europe
Boni, Maria, 715
Ireland
Reed, Chris, 191
Wilkinson, J. J., 194
metal ores
Hitzman, Murray W., 685
mineral resources
Rowan, Lawrence, 1019
Nevada
Fortuna, John, 1213
Hudson, Donald M., 367
New Jersey
Brugger, Joël, 819
New South Wales Australia
Lickford, Vanessa, 1607
Wilson, Alan J., 1637
Peru
Perelló, José, 1575
South Australia
Brugger, Joël, 819
tungsten ores
Chiaradia, Massimo, 1039
Lu, Huan-Zhang, 955
United States
Richards, Jeremy P., 1515
Zambia
Brugger, Joël, 819
methane
Europe, gold ores
Poutiainen, Matti, 1355
gold ores
Mao Jingwen, 517
Mexico
base metals
Camprubí, Antoni, 1029
mica group *see* biotite; sericite
microseismicity *see* seismicity
mid-ocean ridge basalts
Burkina Faso, zinc ores
Schwartz, M. O., 1463
Midas mining district
metal ores
Wallace, Alan R., 409
Midlands
metal ores
Reed, Chris, 191
Wilkinson, J. J., 194
mineral deposits, genesis *see also* carlin-type deposits; epigene processes; epithermal processes; exhalative processes; hydrothermal alteration; magmatism; mantos; mesothermal processes; metallogeny; mississippi valley-type deposits; ore-forming fluids; paragenesis; placers; porphyry copper; porphyry molybdenum; quartz veins; sedimentation; stockwork deposits; supergene processes; volcanism
Burkina Faso, zinc ores
Schwartz, M. O., 1463
metal ores
Groves, Iain M., 797
Ripley, Edward M., 635
Sun Weidong, 175
Russian Federation, metal ores
Arndt, N. T., 495
Spain, metal ores
Fernández-Nieto, C., 1413
Zimbabwe, nickel ores
Prendergast, M. D., 865
mineral exploration *see also* geochemical methods; remote sensing
Andes, metal ores
Quang, Chan X., 1683

Argentina, metal ores
Richards, Jeremy P., 1515
Australia
economic geology
Roy, Peter S., 975
metal ores
Groves, David I., 1
Chile
copper ores
Arcuri, Terry, 1667
metal ores
Proffett, John M., 1535
Greenland, gold ores
Sundblad, Krister, 1271
Indonesia, metal ores
Kyle, J. Richard, 1697
metal ores
Groves, Iain M., 797
Hitzman, Murray W., 685
John, David A., 425
Ohmoto, Hiroshi, 157
Nevada
gold ores
Kesler, Stephen E., 1137
metal ores
Wallace, Alan R., 409
New South Wales Australia, metal ores
Lickford, Vanessa, 1607
Wilson, Alan J., 1637
Papua New Guinea, metal ores
Kyle, J. Richard, 1697
Peru, metal ores
Perelló, José, 1575
Scandinavia, gold ores
Sundblad, Krister, 1271
Ukraine, gold ores
Sundblad, Krister, 1271
United States, metal ores
Richards, Jeremy P., 1515
mineral resources
Rowan, Lawrence, 1019
Arizona
Berger, Byron R., 1003
mineral sequence *see* paragenesis
mineralogy *see* carbonates; silicates; sulfides
mining *see* surface mining
mining, open-pit *see* open-pit mining
Miocene
John, David A., 425
Chile
Proffett, John M., 1535
Nevada
Chakurian, A. M., 1159
Hudson, Donald M., 367
Wallace, Alan R., 409
miogeosynclines
gold ores
Yigit, Ozcan, 1173
mississippi valley-type deposits
metal ores
Hitzman, Murray W., 685
Spain, metal ores
Grandia, Fidel, 933
Grandia, Fidel, 1397
Velasco, Francisco, 1371
Thailand, metal ores
Reynolds, Neal A., 773
Mississippian
Nutt, Constance J., 1225
Ireland
Boyce, Adrian J., 649
Mjosa-Vanern mining district
gold ores
Alm, Elisabet, 1311
Mn *see* manganese
Mogul Deposit
economic geology
Boyce, Adrian J., 649
molybdenite
metal ores
Sun Weidong, 175
molybdenite porphyry *see* porphyry molybdenum
molybdenum ores
Sun Weidong, 175
Andes
Quang, Chan X., 1683
Argentina
Richards, Jeremy P., 1515
Australia
Groves, David I., 1
China
Coveney, Raymond M., Jr., 661
Lehmann, Bernd, 663
Peru
Perelló, José, 1575
United States
Richards, Jeremy P., 1515
monzogranite
Mexico, base metals
Camprubí, Antoni, 1029
monzonites
New South Wales Australia, metal ores
Lickford, Vanessa, 1607
Wilson, Alan J., 1637
Moose Lake Complex
gold ores
Davis, Donald W., 51
MORB *see* mid-ocean ridge basalts
Morenci mining district
metal ores
Melchiorre, Erik B., 607
Mount Blitzen volcanic center
metal ores
Castor, Stephen B., 339
Mount Isa Inlier
metal ores
Betts, Peter G., 557
Mule Canyon Deposit
metal ores
John, David A., 425
Mule Canyon Mine
metal ores
John, David A., 425
Murray Basin
economic geology
Roy, Peter S., 975
MVT-type deposits *see* mississippi valley-type deposits
N-15/N-14
Canada, gold ores
Jia, Yiefei, 109
United States, gold ores
Jia, Yiefei, 109
Namibia
zinc ores
Borg, Gregor, 749
nappes
Nevada, gold ores
Howard, Keith A., 249
Utah, gold ores
Howard, Keith A., 249
Navan Deposit
economic geology
Boyce, Adrian J., 649
Nd-144/Nd-143
Himalayas, copper ores
Hou Zengqian, 125
Russian Federation, metal ores
Arndt, N. T., 495
tungsten ores
Lu, Huan-Zhang, 955
Nd/Sm *see* Sm/Nd
neodymium
Nd-144/Nd-143
Himalayas
Hou Zengqian, 125
Russian Federation
Arndt, N. T., 495
tungsten ores
Lu, Huan-Zhang, 955
Sm-147/Nd-144, tungsten ores
Lu, Huan-Zhang, 955
Neogene *see* Miocene; Pliocene
nephelinite
Hawaii, gold ores
Sisson, T. W., 643
nesosilicates *see* olivine group; titanite; willemite; zircon
Netherland India *see* Indonesia
Netherlands New Guinea *see* Irian Jaya Indonesia
network deposits *see* stockwork deposits
Neuquen Basin
metal ores
McCready, A. J., 623
Nevada
gold ores
Fortuna, John, 1213
Hofstra, Albert H., 1063
John, David A., 225
Kesler, Stephen E., 1137
Carlin Mine
Chakurian, A. M., 1159
Carlin Trend
Chakurian, A. M., 1159
Emsbo, Poul, 1069
Emsbo, Poul, 1243
Grauch, V. J. S., 269
Heitt, Dean G., 1107
Howard, Keith A., 249
Roberts Mountains Allochthon
Peters, Stephen G., 317
metal ores
Hudson, Donald M., 367
John, David A., 225
Wallace, Alan R., 409
Carlin Trend
Castor, Stephen B., 339
Theodore, Ted G., 287
Getchell Mine
Arehart, G. B., 235
Roberts Mountains Allochthon
Theodore, Ted G., 287
New Guinea
metal ores, Irian Jaya Indonesia
Meinert, L. D., 147
New Jersey
metal ores
Brugger, Joël, 819
New Jersey Highlands
Johnson, Craig A., 837

New Jersey Highlands
metal ores
Johnson, Craig A., 837
New South Wales Australia *see* Lachlan fold belt
New Zealand *see* Broadlands; North Island
nickel ores
Ripley, Edward M., 635
China
Coveney, Raymond M., Jr., 661
Lehmann, Bernd, 663
Russian Federation
Arndt, N. T., 495
Li, Chusi, 69
Zambia
Steven, Nick, 893
Zimbabwe
Prendergast, M. D., 865
nitrogen
N-15/N-14
Canada
Jia, Yiefei, 109
United States
Jia, Yiefei, 109
Noda-Tamagawa Mine
manganese ores
Hayashi, Ken-ichiro, 181
Norilsk region
metal ores
Arndt, N. T., 495
Li, Chusi, 69
Norilsk-Talnakh mining district
metal ores
Arndt, N. T., 495
normal faults
gold ores
Yigit, Ozcan, 1173
metal ores
Berger, Byron R., 387
Blundell, D. J., 1487
North America *see also* Basin and Range Province; Canadian Shield; Rocky Mountains
gold ores
Jia, Yiefei, 109
North Atlantic *see* Bay of Biscay
North Island
economic geology
Faure, Kevin, 657
Northern Nevada Rift
metal ores
John, David A., 425
Northern Rhodesia *see* Zambia
Northparkes Mines
metal ores
Lickford, Vanessa, 1607
Northwest Extension Deposit
metal ores
Melchiorre, Erik B., 607
noseeum deposits *see* carlin-type deposits
O-18/O-16 *see also* geologic thermometry
Canada, gold ores
Jia, Yiefei, 109
Chile
copper ores
Arcuri, Terry, 1667
metal ores
Wilson, Nicholas S. F., 163
Finland, metal ores
Roberts, Michael D., 535
France, metal ores
Bellot, Jean-Philippe, 1427
gold ores
Nutt, Constance J., 1225
Indonesia, metal ores
Meinert, L. D., 147
Italy, metal ores
Boni, Maria, 731
manganese ores
Hayashi, Ken-ichiro, 181
Tsikos, Harilaos, 1449
metal ores
John, David A., 425
Nevada, gold ores
Emsbo, Poul, 1069
Emsbo, Poul, 1243
New Jersey, metal ores
Johnson, Craig A., 837
Spain, metal ores
Fernández-Nieto, C., 1413
Grandia, Fidel, 933
Palero, F. J., 577
Sweden, gold ores
Alm, Elisabet, 1311
tungsten ores
Lu, Huan-Zhang, 955
United States, gold ores
Jia, Yiefei, 109
oblique-slip faults
metal ores
Berger, Byron R., 387
Oceania *see* Melanesia
oceanic crust
Argentina, metal ores
Richards, Jeremy P., 1515
Nevada, gold ores
Grauch, V. J. S., 269
United States, metal ores
Richards, Jeremy P., 1515
oceanography *see* continental margin; sea water; sedimentation; sediments
octahedral iron ore *see* magnetite
oil and gas *see* petroleum
Oligocene
Nevada
Arehart, G. B., 235
Peru
Perelló, José, 1575
olivine
Russian Federation, metal ores
Li, Chusi, 69
Ontario
gold ores, Hemlo Deposit
Davis, Donald W., 51
open-pit mining
New South Wales Australia, metal ores
Lickford, Vanessa, 1607
Ordovician
Tosdal, R. M., 1189
Nevada
Fortuna, John, 1213
Peters, Stephen G., 317
New South Wales Australia
Lickford, Vanessa, 1607
Wilson, Alan J., 1637
Spain
Fernández-Nieto, C., 1413
ore exploration *see* mineral exploration
ore of sedimentation *see* placers
ore-forming fluids
Arizona, metal ores
Melchiorre, Erik B., 607
Australia, metal ores
Groves, David I., 1
Canada, gold ores
Jia, Yiefei, 109
Chile, metal ores
Wilson, Nicholas S. F., 163
gold ores
Mao Jingwen, 517
Nutt, Constance J., 1225
Tosdal, R. M., 1189
Indonesia, metal ores
Meinert, L. D., 147
Ireland, metal ores
Everett, Catherine E., 31
manganese ores
Hayashi, Ken-ichiro, 181
Tsikos, Harilaos, 1449
metal ores
Berger, Byron R., 387
Blundell, D. J., 1487
John, David A., 425
Ohmoto, Hiroshi, 157
Nevada
gold ores
Emsbo, Poul, 1069
Heitt, Dean G., 1107
Peters, Stephen G., 317
metal ores
Arehart, G. B., 235
Castor, Stephen B., 339
Wallace, Alan R., 409
New Zealand, economic geology
Faure, Kevin, 657
Poland, metal ores
Heijlen, Wouter, 911
Spain, metal ores
Grandia, Fidel, 933
Grandia, Fidel, 1397
Velasco, Francisco, 1371
United States, gold ores
Jia, Yiefei, 109
ores, polymetallic *see* polymetallic ores
organic compounds *see also* hydrocarbons
metal ores
Ohmoto, Hiroshi, 157
orogeny *see also* back-arc basins; Hercynian Orogeny; Svecofennian Orogeny
Andes, metal ores
Quang, Chan X., 1683
Canada, gold ores
Jia, Yiefei, 109
Chile, copper ores
Arcuri, Terry, 1667
Scandinavia, gold ores
Sundblad, Krister, 1271
United States, gold ores
Jia, Yiefei, 109
orpiment
gold ores
Tosdal, R. M., 1189
orthogneiss
Sweden, gold ores
Alm, Elisabet, 1311
orthosilicates *see* nesosilicates
Os-187/Os-186
Chile, metal ores
Naslund, H. Richard, 1047
metal ores
Sun Weidong, 175
Os-188/Os-187
Chile, metal ores
Mathur, Ryan, 1050
metal ores
Sun Weidong, 175
Russian Federation, metal ores
Arndt, N. T., 495

Os/Re *see* Re/Os
osmium
Os-187/Os-186
Chile
Naslund, H. Richard, 1047
metal ores
Sun Weidong, 175
Os-188/Os-187
Chile
Mathur, Ryan, 1050
metal ores
Sun Weidong, 175
Russian Federation
Arndt, N. T., 495
overburden pressure *see* lithostatic pressure
overturned folds
gold ores
Yigit, Ozcan, 1173
oxides *see* goethite; hematite; iron oxides; magnetite
oxygen
O-18/O-16
Canada
Jia, Yiefei, 109
Chile
Arcuri, Terry, 1667
Wilson, Nicholas S. F., 163
Finland
Roberts, Michael D., 535
France
Bellot, Jean-Philippe, 1427
gold ores
Nutt, Constance J., 1225
Indonesia
Meinert, L. D., 147
Italy
Boni, Maria, 731
manganese ores
Hayashi, Ken-ichiro, 181
Tsikos, Harilaos, 1449
metal ores
John, David A., 425
Nevada
Emsbo, Poul, 1069
Emsbo, Poul, 1243
New Jersey
Johnson, Craig A., 837
Spain
Fernández-Nieto, C., 1413
Grandia, Fidel, 933
Palero, F. J., 577
Sweden
Alm, Elisabet, 1311
tungsten ores
Lu, Huan-Zhang, 955
United States
Jia, Yiefei, 109
Pacific Plate
Peru, metal ores
Perelló, José, 1575
Padaeng Deposit
metal ores
Reynolds, Neal A., 773
paleoclimatology
Nevada, metal ores
Arehart, G. B., 235
Paleogene *see also* Eocene; Oligocene
Andes
Quang, Chan X., 1683
paleogeography
Nevada, metal ores
Wallace, Alan R., 409
paleoplacers
economic geology
Burton, J. P., 985
Paleoproterozoic *see* Birimian; Svecofennian Orogeny
paleosalinity
Europe, gold ores
Poutiainen, Matti, 1355
gold ores
Mao Jingwen, 517
Nevada, gold ores
Emsbo, Poul, 1069
Spain, metal ores
Fernández-Nieto, C., 1413
Sweden, gold ores
Alm, Elisabet, 1311
Paleozoic *see also* Cambrian; Carboniferous; Devonian; Ordovician; Permian
Mao Jingwen, 517
Antler Orogeny, Nevada
Peters, Stephen G., 317
Himalayas
Hou Zengqian, 125
Nevada
Howard, Keith A., 249
Spain
Palero, F. J., 577
Utah
Howard, Keith A., 249
Panel Mine
economic geology
Burton, J. P., 985
Papua
metal ores
Kyle, J. Richard, 1697
Papua New Guinea
metal ores, Papua
Kyle, J. Richard, 1697
paragenesis
Andes, metal ores
Quang, Chan X., 1683
Argentina, metal ores
McCready, A. J., 623
Chile, metal ores
Proffett, John M., 1535
Fiji, gold ores
Pals, David W., 479
France, metal ores
Bellot, Jean-Philippe, 1427
Ireland, metal ores
Reed, Chris, 191
Wilkinson, J. J., 194
metal ores
John, David A., 425
Nevada
gold ores
Emsbo, Poul, 1069
metal ores
Arehart, G. B., 235
Castor, Stephen B., 339
New South Wales Australia, metal ores
Lickford, Vanessa, 1607
Wilson, Alan J., 1637
Spain, metal ores
Palero, F. J., 577
Pb *see* lead
Pb-204/Pb-208 *see* Pb-208/Pb-204
Pb-206/Pb-204
gold ores
Tosdal, R. M., 1189
Himalayas, copper ores
Hou Zengqian, 125
Ireland, metal ores
Everett, Catherine E., 31
Nevada, metal ores
Castor, Stephen B., 339
Russian Federation, metal ores
Arndt, N. T., 495
Pb-207/Pb-204
gold ores
Tosdal, R. M., 1189
Himalayas, copper ores
Hou Zengqian, 125
Ireland, metal ores
Everett, Catherine E., 31
Nevada, metal ores
Castor, Stephen B., 339
Russian Federation, metal ores
Arndt, N. T., 495
Pb-208/Pb-204
Himalayas, copper ores
Hou Zengqian, 125
Ireland, metal ores
Everett, Catherine E., 31
Nevada, metal ores
Castor, Stephen B., 339
Russian Federation, metal ores
Arndt, N. T., 495
Pb-208/Pb-206
gold ores
Tosdal, R. M., 1189
pelite *see* shale
Pena del Aguila Mine
metal ores
Palero, F. J., 577
peridotites *see* dunite; harzburgite
Perkoa Deposit
zinc ores
Schwartz, M. O., 1463
Permian
Rotliegendes
Blundell, D. J., 1487
Peru *see* Altiplano
petroleum
Chile
Wilson, Nicholas S. F., 163
petrology *see* fluid inclusions; igneous rocks; intrusions; lava; magmas; metamorphic rocks; metamorphism; phase equilibria; volcanism; volcanology
petrostratigraphy *see* lithostratigraphy
Phanerozoic
Australia
Groves, David I., 1
phase equilibria *see* magmas
phosphates *see* apatite
placers *see also* heavy mineral deposits; paleoplacers
Argentina, metal ores
McCready, A. J., 623
Finland, metal ores
Eilu, Pasi, 1329
plagioclase
Nevada, metal ores
Castor, Stephen B., 339
Wallace, Alan R., 409
planation surfaces *see* erosion surfaces
plate collision
Australia, metal ores
Groves, David I., 1
Himalayas, copper ores
Hou Zengqian, 125
Sweden, gold ores
Alm, Elisabet, 1311

plate tectonics *see* back-arc basins; Benioff zone; compression tectonics; continental crust; continental margin; crustal shortening; island arcs; Pacific Plate; South American Plate; subduction; subduction zones; suture zones; terranes; transpression
plateau basalts *see* flood basalts
platinum ores
Ripley, Edward M., 635
China
Coveney, Raymond M., Jr., 661
Lehmann, Bernd, 663
Russian Federation
Arndt, N. T., 495
Li, Chusi, 69
Pleistocene
Italy
Boni, Maria, 731
Pliocene
Australia
Roy, Peter S., 975
Nevada
Emsbo, Poul, 1243
Theodore, Ted G., 287
plutonic rocks *see* gabbros; granites; syenites; ultramafics
plutons
Ontario, gold ores
Davis, Donald W., 51
Sweden, gold ores
Weihed, Par, 1291
point counts
Nevada, gold ores
Kesler, Stephen E., 1137
Poland
metal ores, Upper Silesia
Heijlen, Wouter, 911
zinc ores, Upper Silesia
Boni, Maria, 715
polymetallic ores
China
Coveney, Raymond M., Jr., 661
Lehmann, Bernd, 663
Spain
Palero, F. J., 577
porphyry
Argentina, metal ores
Richards, Jeremy P., 1515
Chile, metal ores
Proffett, John M., 1535
New South Wales Australia, metal ores
Lickford, Vanessa, 1607
United States, metal ores
Richards, Jeremy P., 1515
porphyry copper
Andes, metal ores
Quang, Chan X., 1683
Argentina, metal ores
Richards, Jeremy P., 1515
Arizona, metal ores
Berger, Byron R., 1003
Chile
copper ores
Arcuri, Terry, 1667
metal ores
Proffett, John M., 1535
Himalayas, copper ores
Hou Zengqian, 125
Indonesia, metal ores
Kyle, J. Richard, 1697
Nevada, metal ores
John, David A., 225
New South Wales Australia, metal ores
Lickford, Vanessa, 1607
Wilson, Alan J., 1637
Papua New Guinea, metal ores
Kyle, J. Richard, 1697
Peru, metal ores
Perelló, José, 1575
United States, metal ores
Richards, Jeremy P., 1515
porphyry gold
Nevada, metal ores
John, David A., 225
porphyry molybdenum
Nevada, metal ores
John, David A., 225
Post Fault
gold ores
Chakurian, A. M., 1159
Heitt, Dean G., 1107
potassium-argon *see* K/Ar
Precambrian *see also* Archean; upper Precambrian
Andes
Quang, Chan X., 1683
Nevada
Grauch, V. J. S., 269
Howard, Keith A., 249
Scandinavia
Sundblad, Krister, 1271
Utah
Howard, Keith A., 249
precious metals
Nevada, metal ores
Hudson, Donald M., 367
Theodore, Ted G., 287
prograde metamorphism
Indonesia, metal ores
Meinert, L. D., 147
Pronto Mine
economic geology
Burton, J. P., 985
Proterozoic
Tsikos, Harilaos, 1449
Birimian, Burkina Faso
Schwartz, M. O., 1463
Europe
Poutiainen, Matti, 1355
Himalayas
Hou Zengqian, 125
Huronian
Burton, J. P., 985
Namibia
Borg, Gregor, 749
New Jersey
Johnson, Craig A., 837
Queensland Australia
Betts, Peter G., 557
Spain
Palero, F. J., 577
Svecofennian Orogeny, Finland
Eilu, Pasi, 1329
Sweden
Alm, Elisabet, 1311
Weihed, Par, 1291
Zambia
Steven, Nick, 893
pseudogalena *see* sphalerite
pull apart structures *see* boudinage
pull-apart basins
Himalayas, copper ores
Hou Zengqian, 125
Puna
metal ores
Proffett, John M., 1535
pyrite
Fiji, gold ores
Pals, David W., 479
gold ores
Tosdal, R. M., 1189
Nevada, gold ores
Emsbo, Poul, 1069
Kesler, Stephen E., 1137
Sweden, gold ores
Alm, Elisabet, 1311
pyroclastics *see* ash-flow tuff
Qazaqstan *see* Kazakhstan
Qiangtang Terrane
copper ores
Hou Zengqian, 125
Qianlishan Complex
tungsten ores
Lu, Huan-Zhang, 955
quartz
Nevada, gold ores
Emsbo, Poul, 1069
New Zealand, economic geology
Faure, Kevin, 657
quartz veins
Canada, gold ores
Jia, Yiefei, 109
Chile, metal ores
Proffett, John M., 1535
Europe, gold ores
Poutiainen, Matti, 1355
Nevada, metal ores
Castor, Stephen B., 339
New Zealand, economic geology
Faure, Kevin, 657
Sweden, gold ores
Alm, Elisabet, 1311
Weihed, Par, 1291
United States, gold ores
Jia, Yiefei, 109
Quaternary *see* Pleistocene
Queensland Australia
metal ores, Mount Isa Inlier
Betts, Peter G., 557
Quirke II Mine
economic geology
Burton, J. P., 985
radioactive isotopes *see* Os-187/Os-186; Pb-206/Pb-204; Pb-207/Pb-204; Pb-208/Pb-204; Sm-147/Nd-144; Th-232
Radomiro Tomic Deposit
copper ores
Arcuri, Terry, 1667
rare earths *see also* europium
Finland, metal ores
Roberts, Michael D., 535
Rb/Sr
Nevada, metal ores
Arehart, G. B., 235
Poland, metal ores
Heijlen, Wouter, 911
Re/Os
Chile, metal ores
Mathur, Ryan, 1050
China, metal ores
Coveney, Raymond M., Jr., 661
Lehmann, Bernd, 663
metal ores
Sun Weidong, 175
Nevada, metal ores
Arehart, G. B., 235

Peru, metal ores
Perelló, José, 1575
realgar
gold ores
Tosdal, R. M., 1189
red beds
Ireland, metal ores
Everett, Catherine E., 31
Red Mountain Deposit
metal ores
Berger, Byron R., 1003
red orpiment *see* realgar
redbeds *see* red beds
regional metamorphism
Burkina Faso, zinc ores
Schwartz, M. O., 1463
gold ores
Mao Jingwen, 517
Ontario, gold ores
Davis, Donald W., 51
Reliance Event
nickel ores
Prendergast, M. D., 865
remote sensing *see also* AVIRIS
mineral resources
Rowan, Lawrence, 1019
Reocin Deposit
metal ores
Grandia, Fidel, 1397
Velasco, Francisco, 1371
retrograde metamorphism
Indonesia, metal ores
Meinert, L. D., 147
reverse faults
gold ores
Yigit, Ozcan, 1173
reverse slip faults *see* thrust faults
Reviewers of books
list, 1717
Reviewers of manuscripts
list, 477
Reviews
A Passion for Gold-An Autobiography. (Roberts with Gentry), Madrid and Theodore 465
Applied Mineral Inventory Estimation. (Sinclair and Blackwell), Nielsen 199
Beryllium: Mineralogy, Petrology, and Geochemistry. Reviews in Mineralogy and Geochemistry, Volume 50. (Grew, Ed.), Wood 667
Environmental Aspects of Mine Wastes. Mineralogical Association of Canada Short Course Series, Volume 31. (Jambour, Blowes, and Ritchie, Eds.), Gustin 1253
Geología de los Sistemas Porfíricos en los Andes de Chile. (Camus Infanta), Perello 1704
Magmatic Platinum Group Element Environments in Canada: Present and Future Exploration Target Areas. (Hulbert), Peck 1703
Mantle Plumes: Their Identification through Time. Geological Society of America, Special Paper 352 (Ernst and Buchan, Eds.), Wyman 669
Noble Gases in Geochemistry and Cosmochemistry. Reviews in Mineralogy and Geochemistry, Volume 47 (Porcelli, Ballentine, and Wieler, Eds.) Kendrick 200
Phosphates: Geochemical, Geobiological, and Materials Importance. Reviews in Mineralogy and Geochemistry, Volume 48 (Kohn, Rakovan, and Hughes, Eds.) Hein 1053
Rhodesia *see* Zimbabwe
rhyacolite *see* sanidine
Ridgeway Deposit
metal ores
Wilson, Alan J., 1637
right-lateral faults
Himalayas, copper ores
Hou Zengqian, 125
river plain *see* alluvial plains
Roberts Mountains Allochthon
gold ores
Peters, Stephen G., 317
metal ores
Theodore, Ted G., 287
rock pressure *see* lithostatic pressure
rock salt *see* halite
rock-stratigraphy *see* lithostratigraphy
Rocky Mountains
metal ores
Richards, Jeremy P., 1515
Rodeo Creek Deposit
metal ores
Theodore, Ted G., 287
Rodeo Deposit
metal ores
Arehart, G. B., 235
Rotliegendes
Blundell, D. J., 1487
rubblerock *see* breccia
rubidium-strontium *see* Rb/Sr
Ruby Mountains
gold ores
Howard, Keith A., 249
Nutt, Constance J., 1225
Ruby-East Humboldt metamorphic core complex
gold ores
Howard, Keith A., 249
Ruostesuo Deposit
metal ores
Roberts, Michael D., 535
Russian Federation
gold ores, Kola Peninsula
Sundblad, Krister, 1271
metal ores, Norilsk region
Arndt, N. T., 495
Li, Chusi, 69
Russian Platform *see* Ukrainian Shield
S-34/S-32
Andes, metal ores
Quang, Chan X., 1683
Burkina Faso, zinc ores
Schwartz, M. O., 1463
Chile, metal ores
Wilson, Nicholas S. F., 163
France, metal ores
Bellot, Jean-Philippe, 1427
gold ores
Nutt, Constance J., 1225
Ireland, economic geology
Boyce, Adrian J., 649
metal ores
John, David A., 425
Ripley, Edward M., 635
Nevada
gold ores
Emsbo, Poul, 1243
Kesler, Stephen E., 1137
metal ores
Castor, Stephen B., 339
Russian Federation, metal ores
Li, Chusi, 69
Spain, metal ores
Grandia, Fidel, 933
Palero, F. J., 577
Velasco, Francisco, 1371
Sweden, gold ores
Alm, Elisabet, 1311
samarium
Sm-147/Nd-144, tungsten ores
Lu, Huan-Zhang, 955
San Quentin Mine
metal ores
Palero, F. J., 577
sandarac *see* realgar
sanidine
Nevada, metal ores
Castor, Stephen B., 339
Wallace, Alan R., 409
Santa Rosa Deposit
metal ores
Quang, Chan X., 1683
Santillana Syncline
metal ores
Velasco, Francisco, 1371
Sao Francisco Craton
chromite ores
Marques, Juliana Charao, 87
Sardinia Italy
metal ores
Boni, Maria, 731
zinc ores
Boni, Maria, 715
sausage structure *see* boudinage
Scandinavia *see* Finland; Sweden
scheelite
Sweden, gold ores
Weihed, Par, 1291
sea water *see also* brines
Chile, copper ores
Arcuri, Terry, 1667
sea-level changes
Australia, economic geology
Roy, Peter S., 975
seawater *see* sea water
sedimentary petrology *see* sedimentation; sediments
sedimentary rocks *see also* diagenesis
banded iron formations, metal ores
Ohmoto, Hiroshi, 157
black shale, China
Coveney, Raymond M., Jr., 661
Lehmann, Bernd, 663
carbonate rocks
Brazil
Brugger, Joël, 819
gold ores
Yigit, Ozcan, 1173
New Jersey
Brugger, Joël, 819
Poland
Heijlen, Wouter, 911
South Australia
Brugger, Joël, 819
Spain
Fernández-Nieto, C., 1413
Zambia
Brugger, Joël, 819

dolostone, Spain
Grandia, Fidel, 933
evaporites, Chile
Arcuri, Terry, 1667
gold ores
Nutt, Constance J., 1225
Tosdal, R. M., 1189
iron formations, manganese ores
Tsikos, Harilaos, 1449
limestone
Ireland
Everett, Catherine E., 31
mineral resources
Rowan, Lawrence, 1019
Spain
Grandia, Fidel, 933
New South Wales Australia, metal ores
Wilson, Alan J., 1637
Peru, metal ores
Perelló, José, 1575
red beds, Ireland
Everett, Catherine E., 31
shale
Queensland Australia
Betts, Peter G., 557
Zambia
Steven, Nick, 893
siliceous sinter, Nevada
Wallace, Alan R., 409
siltstone, mineral resources
Rowan, Lawrence, 1019
Spain, metal ores
Grandia, Fidel, 1397
sedimentation *see also* braided streams; diagenesis; dolomitization; paleoplacers
marine sedimentation, Chile
Arcuri, Terry, 1667
Nevada, gold ores
Grauch, V. J. S., 269
sediments *see also* stream sediments
Chile, metal ores
Proffett, John M., 1535
clay, Nevada
Emsbo, Poul, 1069
seismic profiles
France, metal ores
Bellot, Jean-Philippe, 1427
seismicity
Chile, metal ores
Proffett, John M., 1535
seismology *see* crust; earthquakes; mantle
seismotectonics
metal ores
Blundell, D. J., 1487
sensing, remote *see* remote sensing
sensitive high mass-resolution ion microprobe data *see* SHRIMP data
sericite
Nevada, metal ores
Arehart, G. B., 235
Shaimerden Deposit
metal ores
Boland, M. B., 787
shale
Queensland Australia
Betts, Peter G., 557
Zambia
Steven, Nick, 893
Shanxingshan Deposit
metal ores
Sun Weidong, 175
shear zones *see also* metamorphic core complexes
France, metal ores
Bellot, Jean-Philippe, 1427
Ontario, gold ores
Davis, Donald W., 51
Sweden, gold ores
Weihed, Par, 1291
sheet silicates *see* mica group
Shenglilinchang Deposit
metal ores
Sun Weidong, 175
Shizhuyuan Deposit
tungsten ores
Lu, Huan-Zhang, 955
shortening, crustal *see* crustal shortening
SHRIMP data
gold ores
Tosdal, R. M., 1189
Namibia, zinc ores
Borg, Gregor, 749
New South Wales Australia, metal ores
Lickford, Vanessa, 1607
Zambia, metal ores
Steven, Nick, 893
Siam *see* Thailand
Siberia
metal ores
Li, Chusi, 69
siderite *see* iron ores
Silesia
zinc ores
Boni, Maria, 715
silica
metal ores
John, David A., 425
silica minerals *see* quartz
silicates *see also* chain silicates; framework silicates; orthosilicates; sheet silicates
Italy, metal ores
Boni, Maria, 731
siliceous sinter
Nevada, metal ores
Wallace, Alan R., 409
silicification
gold ores
Nutt, Constance J., 1225
Yigit, Ozcan, 1173
sills
Brazil, chromite ores
Marques, Juliana Charao, 87
Russian Federation, metal ores
Li, Chusi, 69
Zimbabwe, nickel ores
Prendergast, M. D., 865
siltstone
mineral resources
Rowan, Lawrence, 1019
silver ores
Berger, Byron R., 387
John, David A., 425
Australia
Groves, David I., 1
Ireland
Boyce, Adrian J., 649
Nevada
Castor, Stephen B., 339
Hudson, Donald M., 367
John, David A., 225
Theodore, Ted G., 287
New Zealand
Faure, Kevin, 657
Queensland Australia
Betts, Peter G., 557
Spain
Palero, F. J., 577
Silvermines Deposit
economic geology
Boyce, Adrian J., 649
skarn
Finland, metal ores
Eilu, Pasi, 1329
Indonesia, metal ores
Meinert, L. D., 147
New South Wales Australia, metal ores
Wilson, Alan J., 1637
Peru, metal ores
Perelló, José, 1575
Scandinavia, gold ores
Sundblad, Krister, 1271
tungsten ores
Lu, Huan-Zhang, 955
Skellefte mining district
gold ores
Weihed, Par, 1291
Skorpion Deposit
zinc ores
Borg, Gregor, 749
Sm-147/Nd-144
tungsten ores
Lu, Huan-Zhang, 955
Sm/Nd
Burkina Faso, zinc ores
Schwartz, M. O., 1463
Nevada, metal ores
Arehart, G. B., 235
Snapper Deposit
economic geology
Roy, Peter S., 975
South America *see* Andes; Argentina; Brazil; Chile; Peru
South American Plate
Peru, metal ores
Perelló, José, 1575
South Australia
metal ores
Brugger, Joël, 819
Southern Africa *see* Namibia
Southern Europe *see* Iberian Peninsula; Italy
Southern Rhodesia *see* Zimbabwe
Spain
metal ores
Fernández-Nieto, C., 1413
Grandia, Fidel, 933
Palero, F. J., 577
Cantabrian Basin
Grandia, Fidel, 1397
Velasco, Francisco, 1371
zinc ores
Boni, Maria, 715
spectra *see* mass spectra
spectroscopy
AVIRIS, Arizona
Berger, Byron R., 1003
sphalerite *see also* zinc ores
Sweden, gold ores
Alm, Elisabet, 1311
sphene *see* titanite
Sr-87/Sr-86
Chile, metal ores
Wilson, Nicholas S. F., 163
Himalayas, copper ores
Hou Zengqian, 125
Nevada, gold ores
Grauch, V. J. S., 269

Russian Federation, metal ores
Arndt, N. T., 495
Spain, metal ores
Grandia, Fidel, 933
Sr/Rb *see* Rb/Sr
stable isotopes *see* Ar-40/Ar-36; C-13/C-12; Cl-37/Cl-35; D/H; He-4/He-3; N-15/N-14; Nd-144/Nd-143; O-18/O-16; Os-187/Os-186; Os-188/Os-187; Pb-206/Pb-204; Pb-207/Pb-204; Pb-208/Pb-204; Pb-208/Pb-206; S-34/S-32; Sm-147/Nd-144
Sterling Hill Deposit
metal ores
Johnson, Craig A., 837
stockwork deposits
Indonesia, metal ores
Kyle, J. Richard, 1697
Nevada, metal ores
Castor, Stephen B., 339
Hudson, Donald M., 367
New South Wales Australia, metal ores
Wilson, Alan J., 1637
Papua New Guinea, metal ores
Kyle, J. Richard, 1697
Storm Deposit
metal ores
Theodore, Ted G., 287
stratigraphy *see* Archean; Cambrian; Carboniferous; Cretaceous; Devonian; Eocene; Jurassic; Mesozoic; Miocene; Mississippian; Oligocene; Ordovician; Paleogene; Paleozoic; Phanerozoic; Pleistocene; Pliocene; Precambrian; Proterozoic; Tertiary; Triassic
stream sediments
Nevada, metal ores
Theodore, Ted G., 287
streams *see* braided streams
strike-slip faults *see also* transcurrent faults
Himalayas, copper ores
Hou Zengqian, 125
strontium
Sr-87/Sr-86
Chile
Wilson, Nicholas S. F., 163
Himalayas
Hou Zengqian, 125
Nevada
Grauch, V. J. S., 269
Russian Federation
Arndt, N. T., 495
Spain
Grandia, Fidel, 933
structural basins *see* basins
structural geology *see* deformation; faults; folds; foliation; fractures; geosynclines; orogeny; tectonics
subduction
Australia, metal ores
Groves, David I., 1
Canada, gold ores
Jia, Yiefei, 109
United States, gold ores
Jia, Yiefei, 109
subduction zones *see also* back-arc basins
Argentina, metal ores
Richards, Jeremy P., 1515
Peru, metal ores
Perelló, José, 1575
United States, metal ores
Richards, Jeremy P., 1515
sulfates *see* barite
sulfidation
metal ores
John, David A., 425
Nevada, gold ores
Emsbo, Poul, 1069
Fortuna, John, 1213
Kesler, Stephen E., 1137
sulfides *see also* chalcopyrite; galena; molybdenite; orpiment; pyrite; realgar; sphalerite
Chile, metal ores
Proffett, John M., 1535
Mexico, base metals
Camprubí, Antoni, 1029
New South Wales Australia, metal ores
Wilson, Alan J., 1637
Zimbabwe, nickel ores
Prendergast, M. D., 865
sulfur
S-34/S-32
Andes
Quang, Chan X., 1683
Burkina Faso
Schwartz, M. O., 1463
Chile
Wilson, Nicholas S. F., 163
France
Bellot, Jean-Philippe, 1427
gold ores
Nutt, Constance J., 1225
Ireland
Boyce, Adrian J., 649
metal ores
John, David A., 425
Ripley, Edward M., 635
Nevada
Castor, Stephen B., 339
Emsbo, Poul, 1243
Kesler, Stephen E., 1137
Russian Federation
Li, Chusi, 69
Spain
Grandia, Fidel, 933
Palero, F. J., 577
Velasco, Francisco, 1371
Sweden
Alm, Elisabet, 1311
sulphides *see* sulfides
Sunnyside Deposit
metal ores
Berger, Byron R., 1003
supergene processes
Andes, metal ores
Quang, Chan X., 1683
Arizona, metal ores
Melchiorre, Erik B., 607
Chile
copper ores
Arcuri, Terry, 1667
metal ores
Proffett, John M., 1535
Italy, metal ores
Boni, Maria, 731
metal ores
Hitzman, Murray W., 685
Namibia, zinc ores
Borg, Gregor, 749
Nevada, metal ores
Theodore, Ted G., 287
Peru, metal ores
Perelló, José, 1575
Thailand, metal ores
Reynolds, Neal A., 773
Superior Province
gold ores
Davis, Donald W., 51
surface mining *see* open-pit mining
surfaces, erosion *see* erosion surfaces
surficial geology maps
Chile, metal ores
Proffett, John M., 1535
surveys *see* geophysical surveys
suspect terranes *see* terranes
suture zones
Canada, gold ores
Jia, Yiefei, 109
United States, gold ores
Jia, Yiefei, 109
Svalbard
gold ores
Sundblad, Krister, 1271
Svecofennian Orogeny
Finland, metal ores
Eilu, Pasi, 1329
Sweden *see also* Baltic Shield
gold ores
Alm, Elisabet, 1311
Skellefte mining district
Weihed, Par, 1291
syenites *see* monzonites
symposia
Greenland, gold ores
Sundblad, Krister, 1271
Ukraine, gold ores
Sundblad, Krister, 1271
Talnakh Intrusion
metal ores
Li, Chusi, 69
tangential tectonics *see* compression tectonics
Taymyr Dolgan-Nenets Russian Federation *see* Norilsk region
Te *see* tellurium
tectogenesis *see* orogeny
tectonic lines *see* lineaments
tectonic sutures *see* suture zones
tectonics *see also* deformation; faults; lineaments; orogeny; plate tectonics; transpression; uplifts
basement tectonics, metal ores
Blundell, D. J., 1487
compression tectonics, Australia
Groves, David I., 1
extension tectonics
France
Bellot, Jean-Philippe, 1427
metal ores
Berger, Byron R., 387
Nevada
Grauch, V. J. S., 269
Howard, Keith A., 249
Queensland Australia
Betts, Peter G., 557
Utah
Howard, Keith A., 249
seismotectonics, metal ores
Blundell, D. J., 1487
tectonophysics *see* crust; heat flow; mantle; plate tectonics
tectonostratigraphic terranes *see* terranes
tellurium
Fiji, gold ores
Pals, David W., 479

temperature methods *see* heat flow
terranes *see also* greenstone belts
Chile, metal ores
Proffett, John M., 1535
Tertiary *see also* Neogene; Paleogene
Chiaradia, Massimo, 1039
Canada
Jia, Yiefei, 109
Chile
Arcuri, Terry, 1667
Mexico
Camprubí, Antoni, 1029
United States
Jia, Yiefei, 109
Tethys
France, metal ores
Bellot, Jean-Philippe, 1427
Th-232
tungsten ores
Chiaradia, Massimo, 1039
Th/U
Nevada, metal ores
Arehart, G. B., 235
Thailand
metal ores
Reynolds, Neal A., 773
The Himalaya *see* Himalayas
thermal surveys *see* heat flow
thermal waters *see* geothermal fields
thorium
Th-232, tungsten ores
Chiaradia, Massimo, 1039
thorium-uranium *see* Th/U
thrust faults *see also* crustal shortening; reverse faults
Nevada, metal ores
Theodore, Ted G., 287
Tintaya Deposit
metal ores
Perelló, José, 1575
Tipperary Ireland
metal ores
Reed, Chris, 191
Wilkinson, J. J., 194
titanite
Ontario, gold ores
Davis, Donald W., 51
tonnage
Nevada, metal ores
Theodore, Ted G., 287
Sweden, gold ores
Weihed, Par, 1291
torsion faults *see* wrench faults
tracers
Chile, copper ores
Arcuri, Terry, 1667
transcurrent faults
France, metal ores
Bellot, Jean-Philippe, 1427
transport
Hawaii, gold ores
Sisson, T. W., 643
transpression
Argentina, metal ores
Richards, Jeremy P., 1515
metal ores
Berger, Byron R., 387
United States, metal ores
Richards, Jeremy P., 1515
transverse faults
metal ores
Berger, Byron R., 387
Tres Ventas Mine
metal ores
Palero, F. J., 577
Triassic
Hayashi, Ken-ichiro, 181
tungstates *see* scheelite; wolframite
tungsten ores
Chiaradia, Massimo, 1039
Lu, Huan-Zhang, 955
Turquoise Ridge Deposit
gold ores
Tosdal, R. M., 1189
Tuscarora mining district
metal ores
Castor, Stephen B., 339
Tuscarora volcanic field
metal ores
Castor, Stephen B., 339
Twin Creeks Deposit
gold ores
Fortuna, John, 1213
metal ores
Arehart, G. B., 235
Txomin Mine
metal ores
Grandia, Fidel, 1397
Tynagh Deposit
economic geology
Boyce, Adrian J., 649
U/Pb
Andes, metal ores
Quang, Chan X., 1683
Burkina Faso, zinc ores
Schwartz, M. O., 1463
Namibia, zinc ores
Borg, Gregor, 749
Nevada, metal ores
Arehart, G. B., 235
New South Wales Australia, metal ores
Lickford, Vanessa, 1607
Ontario, gold ores
Davis, Donald W., 51
tungsten ores
Chiaradia, Massimo, 1039
Zambia, metal ores
Steven, Nick, 893
U/Th *see* Th/U
U/Th/Pb
Nevada, gold ores
Emsbo, Poul, 1243
Ukraine
gold ores, Ukrainian Shield
Sundblad, Krister, 1271
Ukrainian Shield
gold ores
Sundblad, Krister, 1271
ultramafics *see* komatiite; peridotites
underground water *see* ground water
United States *see* Alaska; Arizona; California; Great Basin; Nevada; New Jersey; Rocky Mountains; Utah
uplifts
Chile
copper ores
Arcuri, Terry, 1667
metal ores
Proffett, John M., 1535
Nevada, gold ores
Peters, Stephen G., 317
Upper Permian *see* Zechstein
upper Precambrian *see* Proterozoic
Upper Silesia
metal ores
Heijlen, Wouter, 911
zinc ores
Boni, Maria, 715
Upper Volta *see* Burkina Faso
Urals
metal ores
Boland, M. B., 787
uranium-lead *see* U/Pb
uranium-thorium *see* Th/U
Utah
gold ores
Howard, Keith A., 249
Variscan Orogeny *see* Hercynian Orogeny
Vazante Deposit
metal ores
Brugger, Joël, 819
veins *see* quartz veins
Vihanti-Pyhasalmi mining district
metal ores
Roberts, Michael D., 535
visualization
Indonesia, metal ores
Kyle, J. Richard, 1697
Papua New Guinea, metal ores
Kyle, J. Richard, 1697
Viti Levu
gold ores
Pals, David W., 479
volatiles
gold ores
Mao Jingwen, 517
volcanic arcs *see* island arcs
volcanic fields
Chile, metal ores
Proffett, John M., 1535
volcanic glass
Hawaii, gold ores
Sisson, T. W., 643
volcanic processes *see* volcanism
volcanic rocks *see also* andesites; basalts; glasses; pyroclastics
Chile, metal ores
Wilson, Nicholas S. F., 163
gold ores
Nutt, Constance J., 1225
Nevada, metal ores
Castor, Stephen B., 339
New South Wales Australia, metal ores
Lickford, Vanessa, 1607
Wilson, Alan J., 1637
volcanism
Argentina, metal ores
Richards, Jeremy P., 1515
Mexico, base metals
Camprubí, Antoni, 1029
Nevada
gold ores
Chakurian, A. M., 1159
metal ores
Wallace, Alan R., 409
Queensland Australia, metal ores
Betts, Peter G., 557
United States, metal ores
Richards, Jeremy P., 1515
volcanology
Zimbabwe, nickel ores
Prendergast, M. D., 865

Voltaic Republic *see* Burkina Faso
Volyno-Azov Massif *see* Ukrainian Shield
vulcanism *see* volcanism
Wadati-Benioff Zone *see* Benioff zone
wall rocks
  Finland, metal ores
    Eilu, Pasi, 1329
  manganese ores
    Hayashi, Ken-ichiro, 181
  metal ores
    Hitzman, Murray W., 685
    John, David A., 425
  Nevada, gold ores
    Kesler, Stephen E., 1137
Waulsortian facies
  Ireland, metal ores
    Everett, Catherine E., 31
Welches Canyon Stock
  gold ores
    Chakurian, A. M., 1159
West Africa *see* Burkina Faso
West New Guinea *see* Irian Jaya Indonesia
Western Canada *see* British Columbia; Yukon Territory
Western Europe *see* France; Ireland; Scandinavia
willemite
  Brazil, metal ores
    Brugger, Joël, 819
  Europe, zinc ores
    Boni, Maria, 715
  metal ores
    Groves, Iain M., 797
    Sangster, D. F., 683
  New Jersey, metal ores
    Brugger, Joël, 819
    Johnson, Craig A., 837
  South Australia, metal ores
    Brugger, Joël, 819
  Zambia, metal ores
    Brugger, Joël, 819
wolframite *see* tungsten ores
wrench faults
  France, metal ores
    Bellot, Jean-Philippe, 1427
xanthosiderite *see* goethite
Xianlinbu Deposit
  metal ores
    Sun Weidong, 175
Xihuashan Deposit
  tungsten ores
    Lu, Huan-Zhang, 955
yellow arsenic *see* orpiment
Yueshan Deposit
  metal ores
    Sun Weidong, 175
Yukon Territory
  gold ores
    Jia, Yiefei, 109
Yulong Belt
  copper ores
    Hou Zengqian, 125
Yulong Deposit
  copper ores
    Hou Zengqian, 125
Zambia *see also* Copperbelt
  metal ores
    Brugger, Joël, 819
Zechstein *see* Kupferschiefer
Zimbabwe
  nickel ores
    Prendergast, M. D., 865
zinc blende *see* sphalerite
zinc ores *see also* lead-zinc deposits; mississippi valley-type deposits
  Australia
    Groves, David I., 1
  Burkina Faso
    Schwartz, M. O., 1463
  Europe
    Boni, Maria, 715
  Finland
    Roberts, Michael D., 535
  Ireland
    Boyce, Adrian J., 649
  Namibia
    Borg, Gregor, 749
  Nevada
    Hudson, Donald M., 367
  Queensland Australia
    Betts, Peter G., 557
  Spain
    Palero, F. J., 577
zircon
  Burkina Faso, zinc ores
    Schwartz, M. O., 1463
  Ontario, gold ores
    Davis, Donald W., 51